



AUTOMATED FLUID MINERALS SUPPORT SYSTEM II (AFMSS II)

OPERATOR SOFTWARE USER GUIDE

OCTOBER 26, 2015

DIRM: AFMSSII_BLM_SUG_DV2.05_(2015-10-26)

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NATIONAL OPERATIONS CENTER
DIVISION OF IRMS SUPPORT SERVICES
DENVER FEDERAL CENTER
DENVER, COLORADO 80225-0047**

Revision/Change History

Date	Doc. Version	Description	Author
29 May 2013	1.1	Based on 29 May Iteration of Application	Avery Collins
05 October 2013	1.2	Based on 07 September Iteration of Application	Avery Collins, Lois Chang
14 October 2013	1.3	Based on 07 Oct Iteration of Application	Lois Chang
30 October 2013	1.5	Based on 21 Oct Iteration of Application	Lois Chang
1 November 2013	1.7	Review, format	Mike McCoy
2 November 2013	1.8	Add Alt text descriptions for figures	Lois Chang
3 November 2013	1.9	Final Review	Brian Davis
30 April 2014	2.0	BASS; New figures for new UI	Brian Davis
15 January 2015	2.01	Figure Updates	Taylor Ellmaker
16 June 2015	2.02	Updated document layout and images	Jessie Gonzales
29 July 2015	2.03	Updated the 3.1.3 3.1.3 Monitor the Status of a Submitted Form section	Jessie Gonzales
7 August 2015	2.04	Updated Images	Jessie Gonzales
26 October 2015	2.05	Updated each section with additional detail and content	Jessie Gonzales

TABLE OF CONTENTS

1	ABOUT THIS USER GUIDE	4
2	AFMSS II OVERVIEW	4
2.1	DATA ENTRY PROCESS.....	4
3	ACCESSING AFMSS II	5
3.1	AFMSS II USER ROLES.....	5
3.2	LOGGING INTO THE BLM ACCESS SECURITY SYSTEM (BASS)	6
3.2.1	<i>Logging out of AFMSS II</i>	<i>10</i>
4	USER WORK AREA.....	11
4.1	USER WORK AREA OVERVIEW	11
4.1.1	<i>Monitor the Status of a Submitted Form</i>	<i>12</i>
4.1.2	<i>Run Reports.....</i>	<i>12</i>
4.1.3	<i>Updating and Re-Submitting Your APD</i>	<i>12</i>
5	PROCESSING A NOTICE OF STAKING (NOS).....	13
5.1	NOTICE OF STAKING (NOS) PROCESS OVERVIEW.....	13
5.2	INITIATING A NOS	14
5.2.1	<i>Submitting a NOS.....</i>	<i>18</i>
5.2.2	<i>Handling a NOS with Conformance Issues.....</i>	<i>19</i>
5.2.3	<i>Confirming an APD was Started/Existed.....</i>	<i>20</i>
5.2.4	<i>Initiating the APD Process.....</i>	<i>20</i>
5.2.5	<i>Completing a NOS.....</i>	<i>20</i>
6	PROCESSING AN APPLICATION OF PERMIT TO DRILL (APD).....	21
6.1	NAVIGATING THROUGH APD FORMS	22
6.2	MANDATORY FIELDS	23
6.3	AUTO-FILL DATA	23
6.4	TEXTBOXES.....	24
6.5	DATA VALIDATION	24
6.6	SAVING YOUR DATA	24
6.7	SUBMITTING YOUR APD.....	24
6.8	CLONING AN APD	24
6.9	PRINTING YOUR APD.....	24

6.10	APPLICATION OF PERMIT TO DRILL (APD) PROCESS OVERVIEW	25
6.10.1	Operator APD Process	25
6.11	ELECTRONIC APD PROCESS	25
6.11.1	APD Application Form Section	25
6.11.2	APD Drilling Plan Form Sections.....	30
6.11.3	APD Surface Use Plan of Operations Form Section.....	36
6.11.4	APD Produced Water Disposal Form Section	48
6.11.5	Bond Section	57
6.11.6	Operator Certification Section	58
6.11.7	Application Fee.....	58
6.11.8	Operator submit changes/address deficiencies in APD process	67
6.11.9	Operator Print Package.....	68
7	APPENDIX A – HELPFUL HINTS	68
8	APPENDIX B - LIST OF TERMS.....	69
9	LIST OF PROCESS MONITOR ICONS	79

LIST OF TABLES

Table 1: Data Entry Phases for Oil & Gas Processing.....	5
Table 2: User Role Descriptions	5

Welcome to the Bureau of Land Management's (BLM's) new Web-based Automated Fluid Minerals Support System II (AFMSS II).

1 About this User Guide

This guide explains how to use **AFMSS II** to complete and submit a Notice of Staking (NOS) and Application for Permit to Drill (APD) for BLM review.

The User Guide is divided into two separate sections: Processing a Notice of Staking (NOS) and Processing an Application of Permit to Drill (APD). The Processing a Notice of Staking (NOS) begins on page 13 and the Processing an Application of Permit to Drill (APD) begins on page 21. Each section begins with a general overview of the process and how each user fulfills their role in that process. Instructions on how the user completes the forms for that process are explained in greater detail within that section under the heading of that user's role. For example, if the user's role is an Adjudicator and they are looking for information on how to check lease validity for the NOS, they would find this information under the Adjudicator section. Indeed, all NOS forms/instructions for an Adjudicator are located in the Adjudicator section. Likewise, all NOS forms/instructions for a Surface Analyst are found under the Surface Specialist section. And so on. The same principles apply to the Application of Permit to Drill (APD) section.

2 AFMSS II Overview

The Automated Fluid Mineral Support System 2 (AFMSS II) is a computer software application that supports the processing of Notice of Staking (NOS) and Application for Permit to Drill (APD) forms for oil and gas development on public lands. This application was designed to manage the entire lifecycle of NOS and APD forms, from operator submission to Bureau of Land Management (BLM) processing. The new system will ensure that all necessary information is captured and stored using the automated process workflows. AFMSS II utilizes the BizFlow™ Business Process Management (BPM) platform to ensure that the entire APD/NOS process provides operators and BLM with the highest level of information accuracy, visibility, transparency, control and accountability.

2.1 Data Entry Process

Until AFMSS II becomes fully operational, operators will have to enter data into two systems: AFMSS I (WIS) and AFMSS II.

Currently, operators use AFMSS I (WIS) to enter oil and gas permitting documents via an Internet browser. With the launch of AFMSS II, the Phase One process begins, which makes this User Guide so important. While operators must continue to use AFMSS I (WIS) for the Well Completion Reports and Sundry Notice forms until these two modules are completed in the AFMSS II system; they must enter Notice of Staking (NOS) and Application of Permit to Drill (APD) processing using AFMSS II via their Internet browser. When Phase Two is complete, all oil and gas permitting document processing will be done via AFMSS II. (See Table 1: Data Entry Phases for Oil & Gas Processing on page 5.)

Table 1: Data Entry Phases for Oil & Gas Processing

		CURRENT PROCESS		PHASE ONE PROCESS		PHASE TWO PROCESS	
		AFMSS I (WIS)	AFMISS II	AFMSS I (WIS)	AFMISS II	AFMSS I (WIS)	AFMISS II
APD	Application of Permit to Drill	✓			✓		✓
GIS	GIS Interface						✓
I&E	Inspection & Enforcement						✓
NOS	Notice of Staking	✓			✓		✓
SN	Sundry Notices Forms	✓		✓			✓
WC	Well Completion Report	✓		✓			✓
WH	Internal Data Warehouse						✓

3 Accessing AFMSS II

3.1 AFMSS II User Roles

The AFMSS II Administrator assigns AFMSS II user roles to all internal and external users. This document focuses on the Operator role and access. There are several additional BLM roles that allow the NOS or APD submitted to move along in the process.

User roles have also played a part in the design of ADMSS II itself. Certain screens, popups, and content—including access to Notice of Staking (NOS) and Application to Permit Drill (APD) forms—only appear for a specific user role, thereby restricting access to functions and features that are not part of that user's job responsibilities. Restricting user access to specific screens and content also prohibits unauthorized users from making changes to records whose content is another user's responsibility.

Each user role has specific read/write authorizations or read-only authorizations. These authorizations are outlined in Table 1 below, along with a brief description of the role in question:

Table 2: User Role Descriptions

User Role	Read Only	Read/Write	Description
Operator		✓	The Operator role completes and modifies the NOS and APD forms throughout the process.
Administrator	✓		The Application Administrator role provides access to the Application Administration functions of the AFMSS II. In the Application Administration screen, user roles are created, assigned, and maintained.

3.2 Logging into the BLM Access Security System (BASS)

The BLM administering BASS individuals have the permissions to create users in BASS, which is the access point for AFMSS II. The Active Directory does not exist in the Barracuda DMZ, therefore all AFMSS II users will need to be added to BASS in order to access the AFMSS II system. The AFMSS Users include the Operators, Authorized Officers, Adjudicators, Surface Analysts, Geologists, Engineers, and Administrators.

To add a user to BASS, perform the following:

1. Go to www.bass.blm.gov/bass2/basslogin.do from your Chrome web browser to access the BASS website. The BASS login page will load.

Figure 1 - BASS Login Webpage

BLM Application Security System

External Production

WARNING TO USERS OF THIS SYSTEM

THIS IS A NOTICE OF MONITORING OF THE DEPARTMENT OF THE INTERIOR (DOI) INFORMATION SYSTEMS. This computer system, including all related equipment, networks, and network devices (including Internet access), is provided by the Department of the Interior (DOI) in accordance with the agency policy for official use and limited personal use.

All agency computer systems may be monitored for all lawful purposes, including but not limited to, ensuring that use is authorized, for management of the system, to facilitate protection against unauthorized access, and to verify security procedures, survivability and operational security. Any information on this computer system may be examined, recorded, copied and used for authorized purposes at any time. All information, including personal information, placed or sent over this system may be monitored, and users of this system are reminded that such monitoring does occur. Therefore, there should be no expectation of privacy with respect to use of this system.

By logging into this agency computer system, you acknowledge and consent to the monitoring of this system. Evidence of your use, authorized or unauthorized, collected during monitoring may be used for civil, criminal, administrative, or other adverse action. Unauthorized or illegal use may subject you to prosecution.

Login

User:

Password:

Login **User SmartCard**

Notice to BASS users wanting to enable SmartCard authentication. Please read the BASS SmartCard authentication setup guide [here](#) for instruction on how to enable login using their BLM issued SmartCard. Please be aware that once SmartCard authentication has been enabled for your account it will be the only method by which you will be able to login into BASS!

This page was created by the
U.S. Bureau of Land Management,
National Operations Center
Denver Federal Center
Denver, CO 80225
Phone: 1-800-BLM-HELP

If you experience any difficulties logging into BASS, please contact your User Representative for the application you are trying to access. If you do not know who your User Representative is, please contact 1-800-BLM-HELP
[Download Adobe Acrobat Reader](#)
Department of the Interior

This is a U.S. Government Computer System. Before continuing, please read this [disclaimer](#), [privacy statement](#), and [acceptable use policy](#).

USA.gov
Government Made Easy

2. Enter your BLM administrative BASS credentials

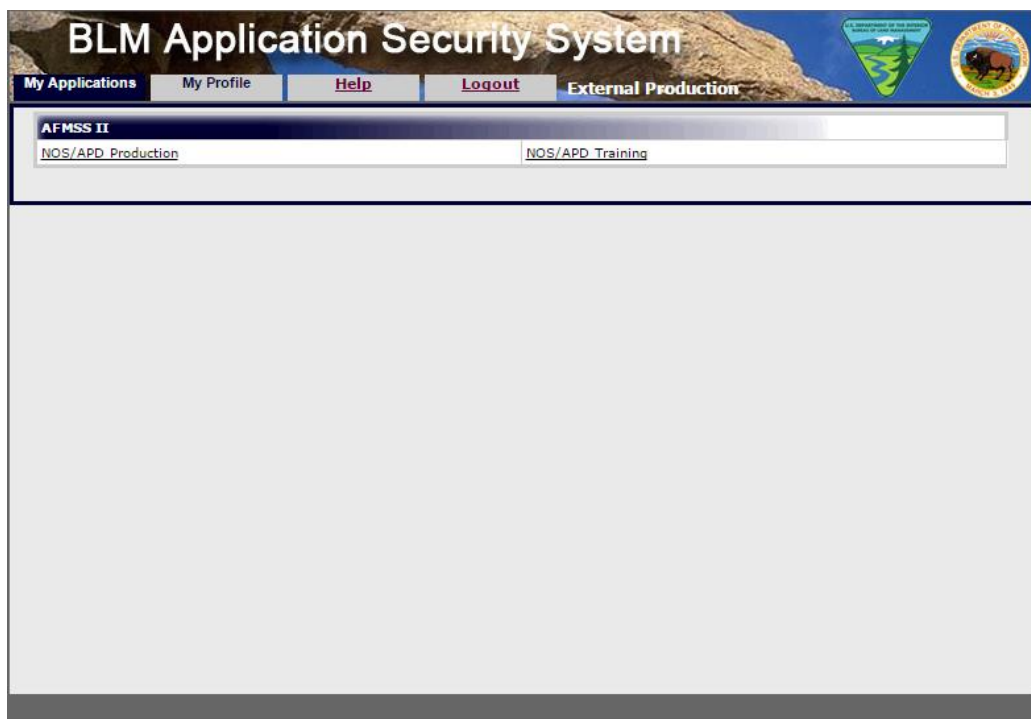


Username: BLM administrative username
Password: BLM administrative password

3. Click the **Login**  button.

The BASS login screen will close, the My Application tab will be selected and appear in the browser window.

Figure 2 - BASS Homepage



4. Select the Edit User  tab

A new screen will open with the Edit Users tab selected

Figure 3 - BASS Edit Users Screen



5. Enter the new user's account information.



Application: AFMSS II
Username: Enter the appropriate username
Permissions: Select the appropriate permissions
Email: Enter the email the user has provided

6. Click the Add **Add** button.

The new user account has been successfully added to AFMSS II.

To login to AFMSS II via the BLM Application Security System (BASS) portal, perform the following:

1. Access BASS by entering the BASS URL in the address line of the Web browser.
The BASS login page will open.

Figure 4 - BASS Login Webpage

BLM Application Security System

External Production

 WARNING TO USERS OF THIS SYSTEM

THIS IS A NOTICE OF MONITORING OF THE DEPARTMENT OF THE INTERIOR (DOI) INFORMATION SYSTEMS. This computer system, including all related equipment, networks, and network devices (including Internet access), is provided by the Department of the Interior (DOI) in accordance with the agency policy for official use and limited personal use.

All agency computer systems may be monitored for all lawful purposes, including but not limited to, ensuring that use is authorized, for management of the system, to facilitate protection against unauthorized access, and to verify security procedures, survivability and operational security. Any information on this computer system may be examined, recorded, copied and used for authorized purposes at any time. All information, including personal information, placed or sent over this system may be monitored, and users of this system are reminded that such monitoring does occur. Therefore, there should be no expectation of privacy with respect to use of this system.

By logging into this agency computer system, you acknowledge and consent to the monitoring of this system. Evidence of your use, authorized or unauthorized, collected during monitoring may be used for civil, criminal, administrative, or other adverse action. Unauthorized or illegal use may subject you to prosecution.

Login

User:

Password:

Login **User SmartCard**

Notice to BASS users wanting to enable SmartCard authentication. Please read the BASS SmartCard authentication setup guide [here](#) for instruction on how to enable login using their BLM issued SmartCard. Please be aware that once SmartCard authentication has been enabled for your account it will be the only method by which you will be able to login into BASS!

This page was created by the
 U.S. Bureau of Land Management,
 National Operations Center
 Denver Federal Center
 Denver, CO 80225
 Phone: 1-800-BLM-HELP

If you experience any difficulties logging into BASS, please contact your User Representative for the application you are trying to access. If you do not know who your User Representative is, please contact 1-800-BLM-HELP
[Download Adobe Acrobat Reader](#)
 Department of the Interior

This is a U.S. Government Computer System. Before continuing, please read this [disclaimer](#), [privacy statement](#), and [acceptable use policy](#).

USA.gov
 Government Made Easy


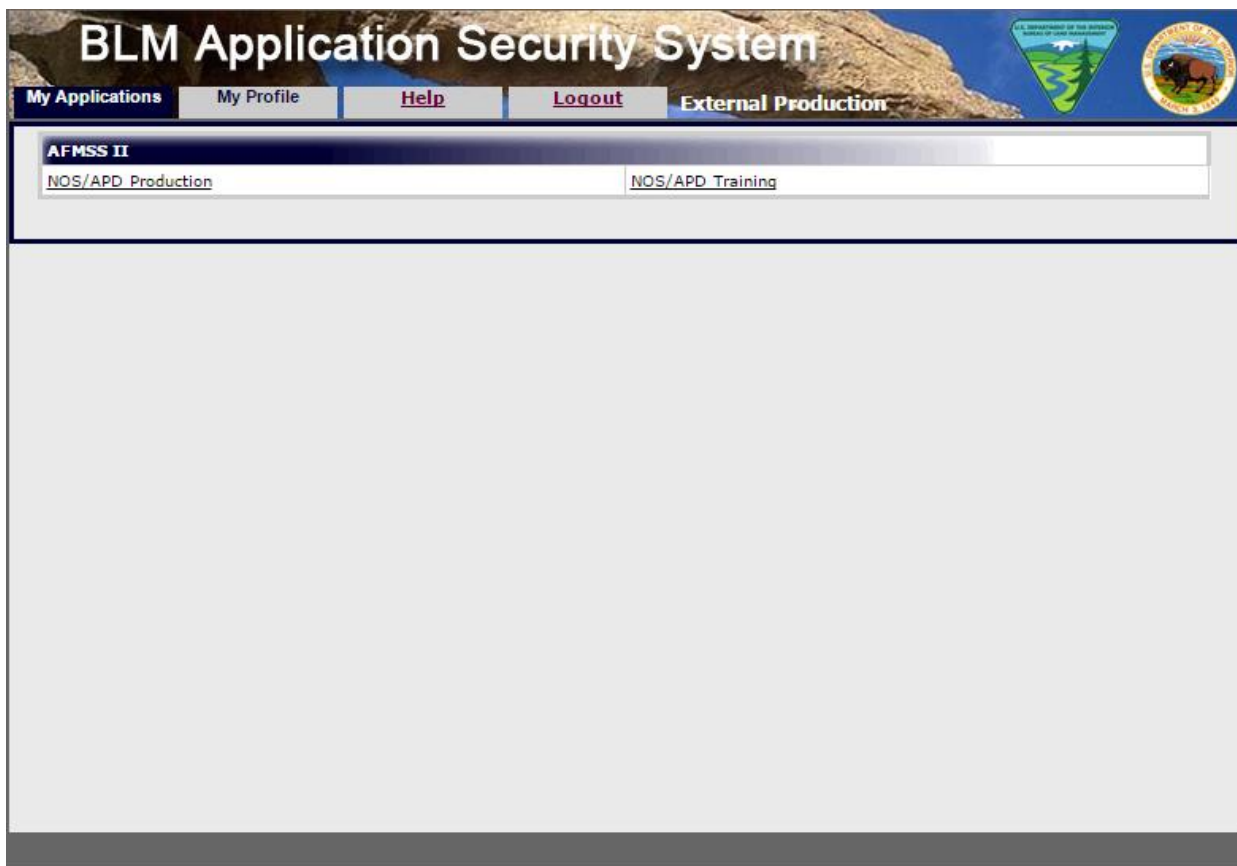
2. Enter your username and password into the appropriate fields.
3. Click the **Login**  button.
The BASS login screen will close and the AFMSS II applications will appear in the browser window.

Figure 5: BASS AFMSS II Applications on the 'My Applications' Screen



4. Click the desired AFMSS II application under AFMSS II (i.e. NOS/APD Production).
The AFMSS II home page will open with the Work Area tab selected.

Figure 6: AFMSS II Home Page – Work Area

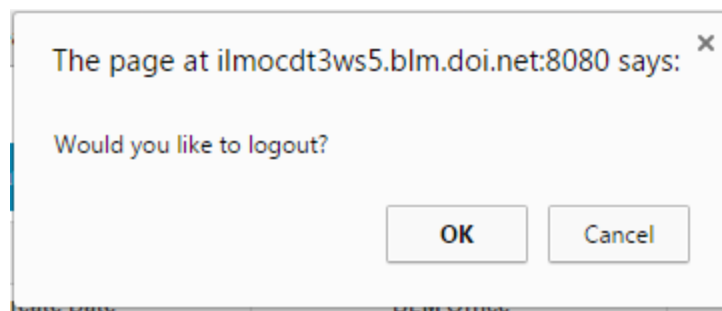
APD ID	Task	Create Date	Operator	Work Name	Shift Number	BLM Office
134000000000	Receive APD	04/03/14 10:01	OperatorC	Payroll APD - 0	04/03/14	VERNAL
134000000001	Receive APD	04/03/14 10:04	Operator	Payroll	04/04	FIELD OFFICE 1
134000000002	Receive APD	04/03/14 10:02	Operator	Operator	Operator	FIELD OFFICE 1
134000000003	Receive APD	04/03/14 10:05	Operator	RTA/000001	04/05/14	FIELD OFFICE 1
134000000004	Receive APD	04/03/14 10:05	Operator	Operator	04/05	FIELD OFFICE 1
134000000005	Receive APD	04/03/14 14:05	Operator	RTA/000002	04/05/14	FIELD OFFICE 1
134000000006	Receive APD	04/03/14 14:05	Operator	RTA/000003	04/05/14	FIELD OFFICE 1
134000000007	Receive APD	04/03/14 14:05	Operator	RTA/000004	04/05/14	FIELD OFFICE 1

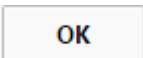
3.2.1 Logging out of AFMSS II

To log out of AFMSS II, perform the following:

1. Click [Log Out](#) link next to the Work Area tab at the top of the screen.
A new window will open asking “Would you like to logout?”

Figure 7 - Logout Window



- Click OK  button

The AFMSS II window will disappear and the BASS login page will load.

4 User Work Area

4.1 User Work Area Overview

Figure 8: User Work Area – BLM Roles

The User Work Area will first appear in the browser window after successfully logging into BASS. The Work Area tab (upper right-hand corner of the screen) is selected, as is the first tab in the Work Area's menu bar. A list of all Notice of Staking (NOS) projects that have been created or assigned to you will appear under the My NOS Worklist tab. Likewise, all Application to Permit Drill (APD) projects are listed under the My APD Worklist tab. The NOS/APD tab lists the links to initiate an APD or NOS process. The My Monitor Tab lists all of the active NOS and APD processes. The My Archive lists all of the completed NOS and APD processes.

The toolbar is located just below the menu bar and contains such functions and features as filtering and searching, refreshing the screen, viewing the monitor, modifying the process, configuring process, and preferences.



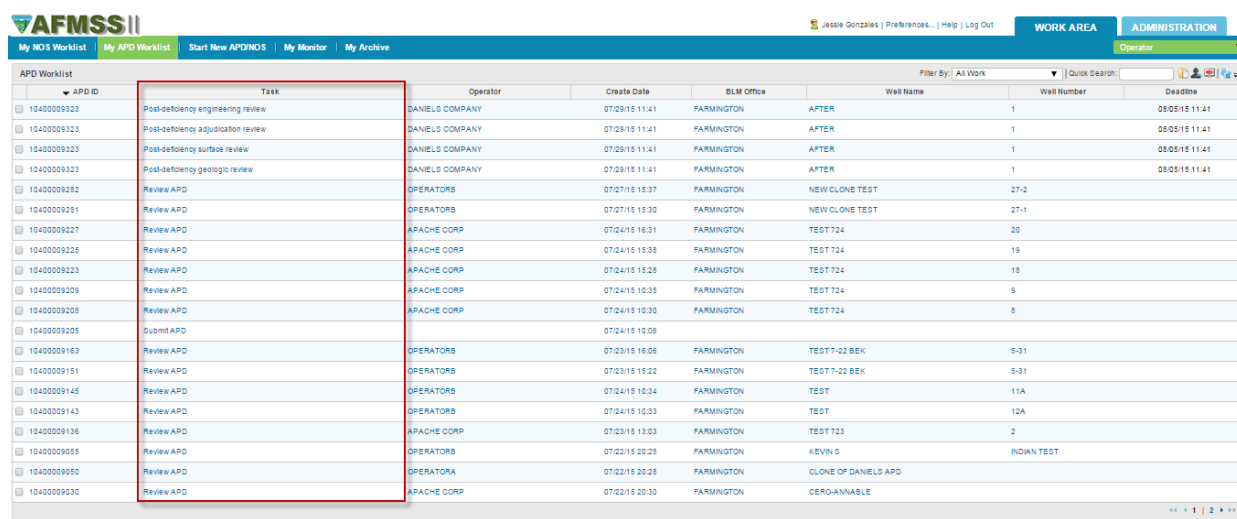
The Work Area content for AFMSS II varies depending upon the BLM user's assigned User Group. For example, the Administration tab will only appear on this screen if the user has permission to access the

Administration screen. (See 3.1 AFMSS II User Roles for further information.)

4.1.1 Monitor the Status of a Submitted Form

Operators can check the NOS or APD status in the My NOS Worklist and My APD Worklist tabs within the Work Area main tab. In both worklist tabs the second column is the Task column which lists the current status the NOS/APD form.

Figure 9 – My APD Worklist Task Column



APD ID	Task	Operator	Create Date	BLM Office	Well Name	Well Number	Deadline
10400009323	Post-deficiency engineering review	DANIELS COMPANY	07/29/15 11:41	FARMINGTON	AFTER	1	08/05/15 11:41
10400009323	Post-deficiency adjudication review	DANIELS COMPANY	07/29/15 11:41	FARMINGTON	AFTER	1	08/05/15 11:41
10400009323	Post-deficiency surface review	DANIELS COMPANY	07/29/15 11:41	FARMINGTON	AFTER	1	08/05/15 11:41
10400009323	Post-deficiency geologic review	DANIELS COMPANY	07/29/15 11:41	FARMINGTON	AFTER	1	08/05/15 11:41
10400009282	Review APD	OPERATORS	07/27/15 15:37	FARMINGTON	NEW CLONE TEST	27-2	
10400009281	Review APD	OPERATORS	07/27/15 15:30	FARMINGTON	NEW CLONE TEST	27-1	
10400009227	Review APD	ARACHE CORP	07/24/15 16:31	FARMINGTON	TEST 724	20	
10400009225	Review APD	ARACHE CORP	07/24/15 15:38	FARMINGTON	TEST 724	19	
10400009223	Review APD	ARACHE CORP	07/24/15 15:28	FARMINGTON	TEST 724	18	
10400009209	Review APD	ARACHE CORP	07/24/15 10:35	FARMINGTON	TEST 724	9	
10400009208	Review APD	ARACHE CORP	07/24/15 10:30	FARMINGTON	TEST 724	8	
10400009205	Submit APD		07/24/15 10:06				
10400009163	Review APD	OPERATORS	07/23/15 16:08	FARMINGTON	TEST 7-22 BEK	5-31	
10400009151	Review APD	OPERATORS	07/23/15 15:22	FARMINGTON	TEST 7-22 BEK	5-31	
10400009145	Review APD	OPERATORS	07/24/15 10:34	FARMINGTON	TEST	11A	
10400009143	Review APD	OPERATORS	07/24/15 10:33	FARMINGTON	TEST	12A	
10400009136	Review APD	ARACHE CORP	07/23/15 13:03	FARMINGTON	TEST 723	2	
10400009055	Review APD	OPERATORS	07/22/15 20:25	FARMINGTON	KEVIN S	INDIAN TEST	
10400009050	Review APD	OPERATOR	07/22/15 20:28	FARMINGTON	CLONE OF DANIELS APD		
10400009030	Review APD	ARACHE CORP	07/22/15 20:30	FARMINGTON	CERO-ANNABLE		

4.1.2 Run Reports

- In Work Area select 'My Reports'

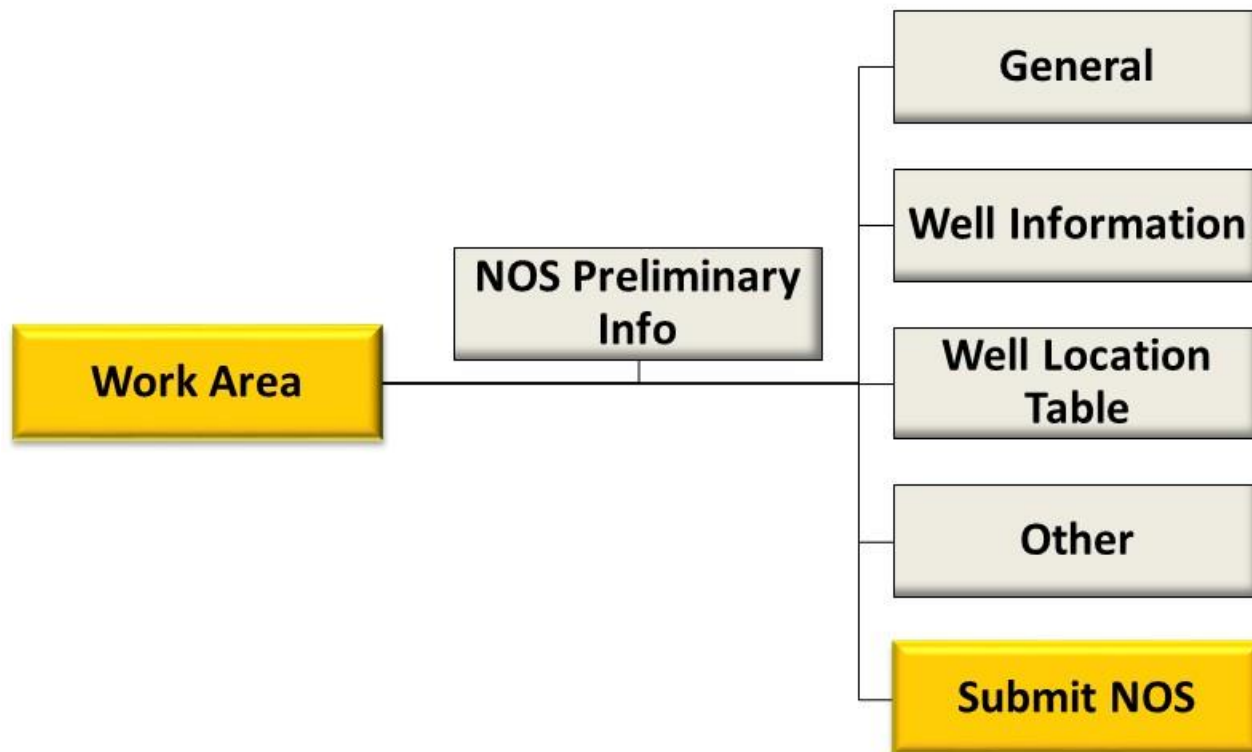
4.1.3 Updating and Re-Submitting Your APD

- Update the APD only when it is sent back to you, not at any arbitrary time
- After each review, make changes or address the deficiencies and re-submit the APD
- After the final review, the APD will be returned for the last time
- Make final changes or address final deficiencies prior to submitting the APD for the last time

5 Processing a Notice of Staking (NOS)

5.1 Notice of Staking (NOS) Process Overview

Figure 10 - Overview of NOS Form Structure



An operator may submit a NOS followed by an APD or an APD without a NOS. The NOS data entry form allows the operator to have BLM conduct an onsite review for the location of the proposed well and to provide feedback on the proposed plan prior to the operator filing an APD. Completing the NOS form and the onsite already conducted helps to expedite the APD process.

The NOS form is organized to require you start by entering essential information on the NOS Preliminary Information screen. Upon completion of that screen, you can begin entering information in the four sections.

AFMSS II utilizes all of the standard data input fields you are used to, including textboxes, pick lists (dropdowns), radio buttons, and checkboxes.

5.2 Initiating a NOS

To initiate a NOS process, perform the following:

1. From the AFMSS II homepage select the **Start New APD/NOS**
The screen will show the Start New APD/NOS tab

Figure 11 – Electronic NOS Start New APD/NOS

▲ Name	Description
<input type="checkbox"/> APD Process	Click to start a new Application for Permit to Drill. (Note that a successful NOS process will initiate an APD automatically)
<input type="checkbox"/> NOS Process	Click to start a new Notice of Staking

2. Click the **Click to start a new Notice of Staking**
A new window will open displaying the NOS Preliminary Information.

Figure 12 – NOS Preliminary Information

AFMSS II U.S. Department of the Interior
Bureau of Land Management

Notice of Staking

Preliminary Information

The following information is required to begin this NOS

BLM Office * -- Please Select -- ⓘ

Federal/Indian NOS * ☐ FEDERAL ☐ INDIAN

Well Name *

Well Type * -- Please Select -- ⓘ

Well Class * ☐ VERTICAL ☐ DIRECTIONAL ☐ HORIZONTAL
☐ SIDETRACK ☐ DUAL-COMPLETION ☐ MULTI-LATERAL

NOS Operator DANIELS COMPANY ⓘ

Well Number *

Well Work Type * ☐ Drill ☐ Reenter

Save

3. Enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

4. Click on the **Save** button
The Preliminary Information screen will close and the Section 1 – General window will open.

Figure 13 – Electronic NOS Section 1 – General

AFMSS II Notice of Staking U.S. Department of the Interior Bureau of Land Management

[Select Application](#) [Cancel Application](#)

AFMSS # NOS # 1440000445
 Well Name OPERATOR NOS
 Well Type OIL WELL
 Well Number NOS 2015
 Well Work Type DRI

[Print NOS Form in PDF](#) [NOS Print Report](#) [Print Attachments](#)

1 2 3 4

Section 1 - General

BLM Office * FARMINGTON User (logistics) Title Business Analyst
 Federal/Indian NOS * ☒ FEDERAL ☐ INDIAN First lease Federal or Indian? * ☒ Federal ☐ Indian
 Lease number * COC1248 Lease Acres 180.8
 Agreement in place? * ☒ Yes ☐ No Federal or Indian agreement * ☒ FEDERAL ☐ INDIAN
 Agreement number * COC47038
 Agreement name HORSE SHOE CANYON
 Designated Agent? * ☐ Yes ☒ No NOS Operator * DANIEL'S COMPANY

Operator Info

Operator Organization Name DANIEL'S COMPANY
 Operator Address 800 OPAL STREET
 Operator PO Box State CO Zip 80020
 Operator City DENVER
 Operator Phone (303) 236-4341
 Operator Internet Address dkeapner@blm.gov

[Back](#) [Validate](#) [Save](#) [Save & Exit](#) [Next](#)

5. Enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).
6. Click on the **Next** button.
The Section 1 – General screen will be saved and Section 2 – Well Information screen will appear.

Figure 14 – Electronic NOS Section 2 – Well Information

AFMSS II Notice of Staking
U.S. Department of the Interior
Bureau of Land Management

[Submit Application](#) [Cancel Application](#)

AFMSS II NOS # 1400000000
Well Name OPERATOR NOS Well Number NOS 2015
Well Type OIL WELL Well Work Type Drill

[Print NOS Form in PDF](#) [NOS Print Report](#) [Print Attachments](#)

Section 2 – Well Information

Well Name * OPERATOR NOS Well Number * NOS 2015
Field/Pool or Exploratory? * ☒ Field and Pool ☐ Exploratory Field Name * FIELD NAME TEST
Pool Name * POOL NAME TEST
Use Existing Well Pad? * ☒ Yes ☐ No New surface disturbance? * ☐ Yes ☒ No
Type of Well Pad * ☐ Single ☒ Multiple Multiple Well Pad Name * MULTIPLE WELL PAD NAME
Number * 2015
Well Class * ☒ VERTICAL ☐ DIRECTIONAL
☐ HORIZONTAL ☐ SIDETRACK
☐ DUAL-COMPLETION ☐ MULTI-LATERAL
Well Work Type * ☒ Drill ☐ Reenter
Well Type * OIL WELL
Surface Owners * ☒ BUREAU OF INDIAN AFFAIRS ☐ BUREAU OF LAND MANAGEMENT ☐ BUREAU OF RECLAMATION
☐ CORPS OF ENGINEERS ☐ PRIVATE OWNERSHIP ☐ MILITARY
☐ STATE GOVERNMENT ☐ U.S. DEPARTMENT OF DEFENSE ☐ U.S. FOREST SERVICE
☐ U.S. FISH AND WILDLIFE SERVICE ☐ U.S. NATIONAL PARK SERVICE ☐ OTHER
BIA Local Office * BIA LOCAL OFFICE

[Back](#) [Validate](#) [Save](#) [Save & Exit](#) [Next](#)

7. Enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).
8. Click on the Next [Next](#) button.
The Section 2 – Well Information screen will be saved and Section 3 – Well Information screen will appear.

Figure 15 – Electronic NOS Section 3 – Well Location Table

1 2 3 4

Section 3 - Well Location Table

Survey Type * RECTANGULAR

Datum * ☐ NAD 27 ☒ NAD 83

Vertical Datum * ☐ NGVD 29 ☒ NAVD 88

Survey number

Based on well class and survey type, the following fields are required

Copy <input type="checkbox"/>	13. State *	NM	11. Meridian *	NEW MEXICO PRINCIPAL	12. County *	RIO ARRIBA
	Latitude	<input type="text"/>	Longitude	<input type="text"/>		
	Elevation (MSL) *	<input type="text" value="3500"/>	16. MD (ft.) *	<input type="text" value="0"/>	16. TVD (ft.) *	<input type="text" value="0"/>
SHL	Lease Type *	<input checked="" type="radio"/> Federal <input type="radio"/> Fee <input type="radio"/> Indian <input type="radio"/> State	Lease # *	<input type="text" value="NMNM14124"/>		
	NS-Foot *	<input type="text" value="330"/>	11. Twsp. *	<input type="text" value="12S"/>	11. Range *	<input type="text" value="15E"/>
		<input type="radio"/> FSL <input type="radio"/> FNL	Aliquot	<input type="text" value="NENE"/>	Lot	<input type="text"/>
	EW-Foot *	<input type="text" value="330"/>	* Either Aliquot, Lot or Tract is required			
		<input type="radio"/> FEL <input type="radio"/> FWL			Tract	<input type="text"/>
	Elevation (MSL)	<input type="text" value="500"/>	MD (ft.)	<input type="text" value="3000"/>	TVD (ft)	<input type="text" value="3000"/>
BHL	Lease Type	<input checked="" type="radio"/> Federal <input type="radio"/> Fee <input type="radio"/> Indian <input type="radio"/> State	Lease #	<input type="text" value="NMNM14124"/>		
Leg# <input type="text" value="1"/>	NS-Foot	<input type="text" value="330"/>	11. Twsp	<input type="text" value="12S"/>	11. Range	<input type="text" value="15E"/>
		<input type="radio"/> FSL <input type="radio"/> FNL	Aliquot	<input type="text" value="NENE"/>	Lot	<input type="text"/>
	EW-Foot	<input type="text" value="330"/>	* Either Aliquot, Lot or Tract is required			
		<input type="radio"/> FEL <input type="radio"/> FWL			Tract	<input type="text"/>

Back
Next

9. Enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

10. Click on the Next Next button

The Section 3 – Well Location Table screen will close and the Section 4 – Other window will open.

Figure 16 – Electronic NOS Section 4 – Other

Section 4 - Other

1 2 3 4

14. Formation Objective(s):

Name:	Estimated Depth:
ANETH	2500
CLIFFHOUSE	3000

Add Formation

15. Estimated Depth: 2500

5. Survey Plat or Map * Attachment Map or Plat.docx Add Attachment...

Description

NOS Form Attachment * Attachment NOS Form.docx Add Attachment...

17. Other Attachment Add Attachment...

17. General Comments

3 / 18. Signed By: Hal Pal Title * Operator Date Signed * 09/14/2015

Back Next

11. Enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

5.2.1 Submitting a NOS

After all four sections of the electronic NOS have been entered into the AFMSS II system, the process is ready to be submitted to the BLM for processing.

To submit the electronic NOS, perform the following:

12. Click on the **Submit Application** button
The Electronic NOS window will close and the AFMSS II homepage will appear. The electronic NOS will move to the next phase in the process.

5.2.1.1 Canceling a NOS

The Operator can cancel the NOS after initiating the NOS and throughout sections 1 – 4, for any given reason.

To cancel the electronic NOS, perform the following:

1. Click on the **Cancel Application**  button
The electronic NOS window will close and the NOS process will move to the My Archive tab.

5.2.2 Handling a NOS with Conformance Issues

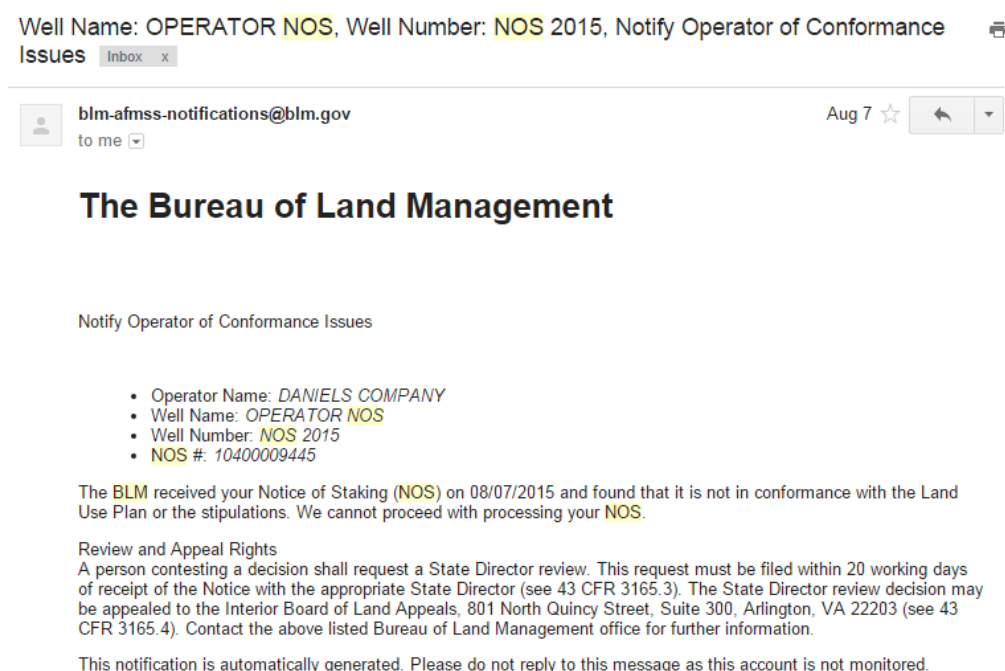
If the BLM Returns the NOS due to conformance Issues, an email will be sent out to the Operator and the NOS will return to the My NOS Worklist tab. The Operator will need to make the necessary changes to re-submit the NOS.

Addressing the NOS conformance issues, perform the following:

1. The Operator will receive an email **Notify Operator of Conformance Issues**

The email will be sent to the Operator's email inbox after the Adjudicator has returned the NOS

Figure 17 – NOS Notify Operator of Conformance Issues



5.2.3 Confirming an APD was Started/Existed

After an electronic NOS has completed the NOS process successfully the process will automatically create an electronic APD in the Operators **My APD Worklist**. The electronic APD Activity label will be listed as **Submit post-NOS APD**.

5.2.4 Initiating the APD Process

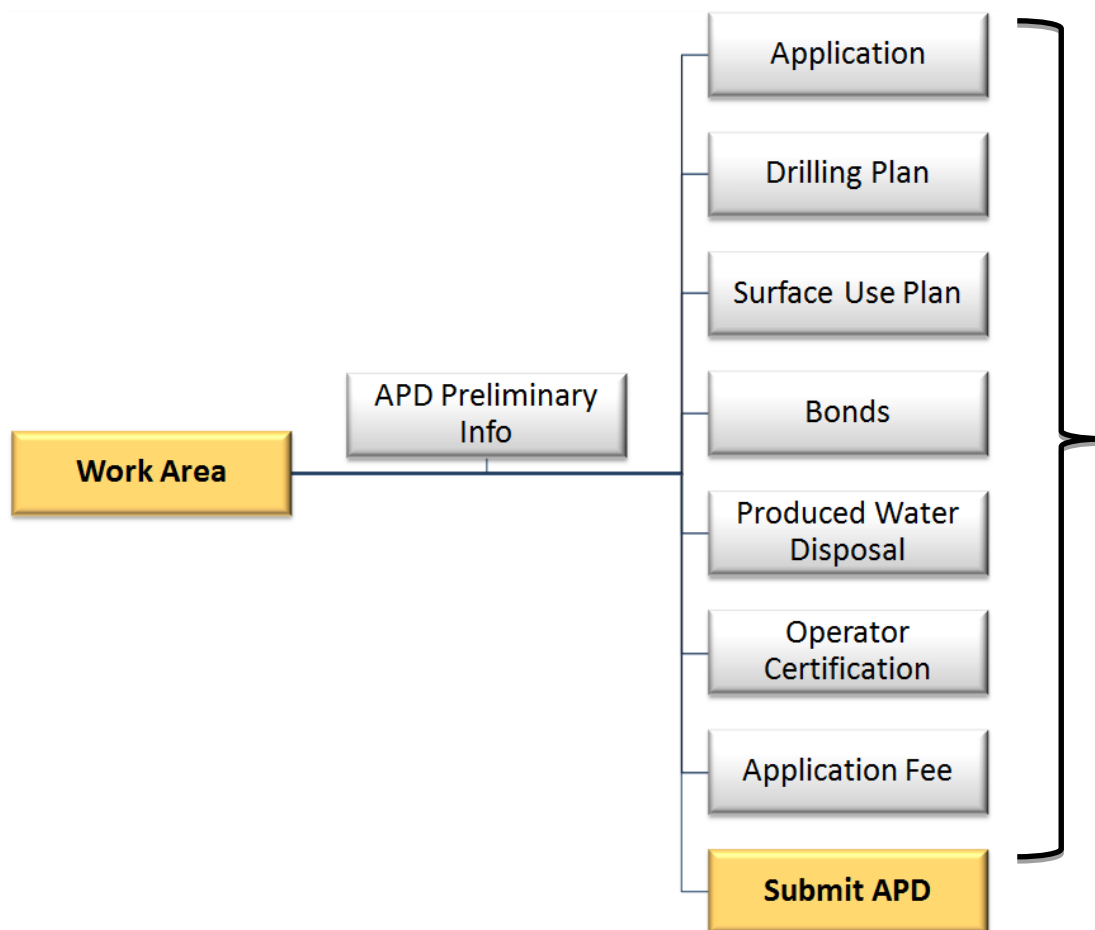
Selecting the **Submit post-NOS APD Activity** from the **My APD Worklist** will initiate the APD process. The Operator will now be able to enter the missing information and make changes to the existing fields as necessary.

5.2.5 Completing a NOS

The electronic NOS has now completed and transferred all data to a new electronic APD. The completed NOS will now transfer to the **My Archive** tab.

6 Processing an Application of Permit to Drill (APD)

Figure 18 - Overview of APD Forms



APD data entry forms are used to enter all data required for submission of a new APD. The forms are organized according to Onshore Oil and Gas Order 1.

The forms are organized to require you start by entering essential information on the APD Preliminary Information screen. Upon completion of that screen, you can begin entering information in any of the APD Entry Forms.

AFMSS II utilizes all of the standard data input fields you are used to, including textboxes, pick lists (dropdowns), radio buttons, and checkboxes.

6.1 Navigating Through APD Forms

After opening an APD Entry Form you may navigate through all the forms in several ways:

Figure 19 - Navigation and Help Tools

- A. Navigation Tabs:** The left side of the screen contains the navigation tabs. You may click on these tabs to jump directly to an APD Entry Form. They also display an approximation of your progress (% completed) in completing the form.
- B. Navigation Bars:** Within each entry form section there is a navigation bar along the top. You may click on these bars to jump directly to a sub-section. As sub-sections are started and/or completed, the navigation bar will change colors to denote its status (White: not filled out; Green: screen presently working on; ½ Blue: partially filled in; Blue: completed)..
- C. Navigation Buttons:** You may also use the buttons at the bottom of each page to navigate to the next or prior logical sub-section.
- D. Tooltips and Help Icons:** Many fields have a tooltip that gives guidance or instructions to the user. The help icon will appear next to certain fields and pointing at this icon with your mouse will pop up the help text.

Based on your profile, AFMSS II will automatically fill in a limited number of form fields automatically (auto-fill).

6.2 Mandatory Fields

Figure 20 - Example Mandatory Field Message

The screenshot shows a web browser window displaying the AFMSS II 'Preliminary Information' form. A modal dialog box is overlaid on the form, stating: 'The page at ilmodz3ws1:8080 says: The following required fields are not yet completed: Well Number, Number of Legs'. The form itself includes the AFMSS II logo, the title 'Application for Permit to Drill', and the BLM logo. The 'Preliminary Information' section contains several fields: 'Would you like to clone the APD from a prior APD?' (radio buttons for Yes/No), 'BLM Office' (dropdown menu set to VERNAL), 'Federal/Indian APD' (checkboxes for FEDERAL and INDIAN, both checked), 'Designated Agent?' (radio buttons for Yes/No), 'Well Name' (text input set to TEST), 'Well Type' (dropdown menu set to OIL WELL), 'Well Number' (empty text input), 'Well Work Type' (radio buttons for Drill/Reenter, with Drill selected), 'Well Class' (radio buttons for VERTICAL, HORIZONTAL, DUAL-COMPLETION, DIRECTIONAL, SIDETRACK, and MULTI-LATERAL), and 'Number of Legs' (empty text input). There are 'Save' and 'Exit' buttons at the bottom right of the form.

The Preliminary Information screen includes a number of fields that are required to be filled out by the Operator. If an Operator leaves these fields blank and tries to save the entered information, a message will appear listing the mandatory fields. These fields are identified with a red asterisk.

This mandatory field message may also appear when an Operator selects the 'APD Submit' button without entering data into all the mandatory fields in the APD forms.

6.3 Auto-Fill Data

NOS to APD

Data entered into a Notice of Staking that is associated with an APD will auto-fill fields in the APD from the NOS.

Master Plans

Master Plans contain information that is common to multiple planned wells, including drilling plans, Surface Use Plans of Operations, and plans for future production. You can create new master plans in the APD by filling in the name field or select an existing master plan and auto-fill its data from that plan.

From Your Profile

AFMSS II fills in a limited number of form fields automatically based upon your profile as a registered user. For example, your name, address, title, email address, organization affiliation (company name), and phone number will all be "auto-filled".

6.4 Textboxes

Areas for text can be filled by placing your cursor into the field and typing or by copy and paste from other documents. Text areas can be expanded by pulling on the lower right corner icon in the field.

6.5 Data Validation

AFMSS II includes a robust set of data validations that help ensure the information you provide is in the format and to level of detail required. For example, the system checks the Lease Serial Number against the Lease Serial Numbers in the BLM system LR2000. If the Lease Serial Number you entered does not appear in LR2000, a message on the screen will notify you that this is the case. Keep in mind that for new leases, the Lease Serial Number may not appear on the list of valid Lease Serial Numbers for up to two days.

6.6 Saving Your Data

The data that you enter can be manually saved using the buttons at the bottom of each screen. Your data will be automatically saved whenever you leave a form section. You do NOT have to fill out every single mandatory field until ready to submit the entire application to BLM for review.

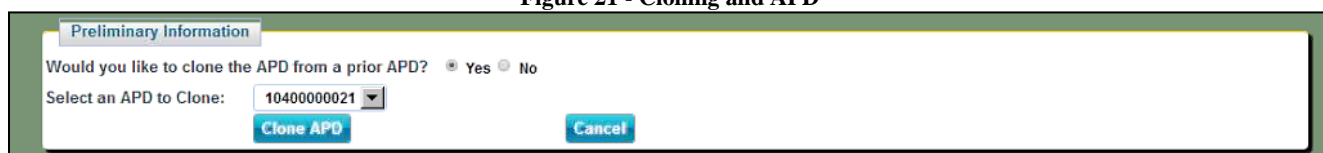
6.7 Submitting Your APD

Once all mandatory fields have been filled and the APD Application Fee has been paid, you can submit your APD by clicking on the 'Submit' button on the left side of any screen. Clicking the 'Cancel' button will indicate that you do not want to submit this APD and all data will be lost, and the APD erased from your screens.

6.8 Cloning an APD

- Initiate an APD
- On the Preliminary Information screen, select 'yes' when asked if you want to clone the APD from a prior APD
- Select an APD ID to clone from the dropdown list

Figure 21 - Cloning and APD



The screenshot shows a web form titled "Preliminary Information". It contains a question: "Would you like to clone the APD from a prior APD?" with radio buttons for "Yes" (selected) and "No". Below this is a label "Select an APD to Clone:" followed by a dropdown menu showing the value "10400000021". At the bottom of the form are two buttons: "Clone APD" and "Cancel".

6.9 Printing Your APD

- At the bottom of the operator form, click the response button 'Print' to print the APD

6.10 Application of Permit to Drill (APD) Process Overview

The following screenshot shows the process steps in an APD review. It shows the activities that are required to be done by the following roles: Operator, BLM Authorized Officer, BLM Surface Specialist BLM Engineer, BLM Geologist and BLM Adjudicator.

6.10.1 Operator APD Process

The Operator has two options in AFMSS II to create an Electronic APD. The first option is to complete an Electronic NOS which will generate an Electronic APD upon completion. The second option is to create an Electronic APD without tying to an Electronic NOS.

6.11 Electronic APD Process

The Operator will initiate an Electronic APD by clicking the **Click to start a new Notice of Staking** link from the **Start New APD/NOS** tab on the AFMSS II homepage. The Preliminary screen will then open in a new window. The Operator will then enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk). The information entered in this screen will create the banner at the top of each screen.

Figure 22 – Electronic APD Preliminary Information

After the Operator clicks the **Save** button a new window will appear with the **Application** module, the **Section 1 – General** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

6.11.1 APD Application Form Section

After entering the required data in the preliminary screen, the APD form will move to the next section in Application section of the process.

Figure 23 - Overview of APD Application Form Sections

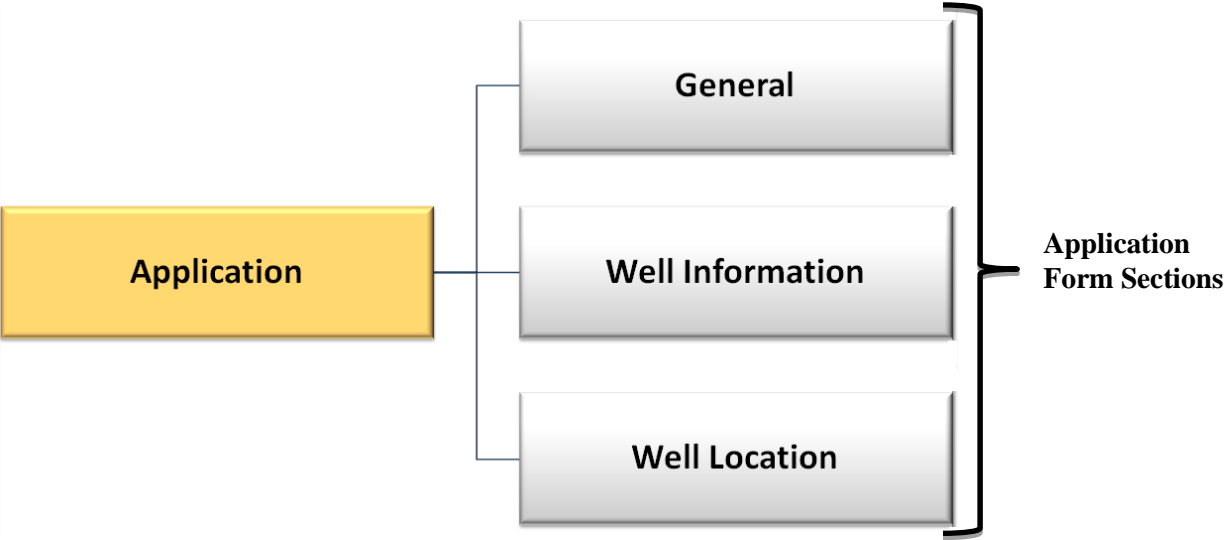


Figure 24 – Electronic APD Section 1 – General

Section 1 - General

APD ID 10400009457

Tie to previous NOS? ☐ Yes ☐ No

BLM Office * FARMINGTON ▼

User Jessie Gonzales Title Business Analyst

Federal/Indian APD * ☒ FEDERAL ☐ INDIAN First lease Federal or Indian? * ☒ Federal ☐ Indian

Lease number * Lease Acres

Agreement in place? * ☐ Yes ☐ No

Keep application confidential? * ☐ Yes ☐ No

Designated Agent? ☐ Yes ☐ No APD Operator * DANIELS COMPANY ▼

Operator Info

Operator Organization Name

Operator Address

Operator PO Box

Operator City State Zip

Operator Phone

Operator Internet Address

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear with the **Application** module, the **Section 2 – Well Information** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 25 – Electronic APD Section 2 – Well Location

1 **2** **3**

Section 2 - Well Information

Well in a new or existing Master Development Plan? * ☐ No ☐ New ☐ Existing

Well Name * Well Number *

Field/Pool or Exploratory? * ☐ Field and Pool ☐ Exploratory ?

Is the proposed well in an area containing other mineral resources? *

<input type="checkbox"/> USEABLE WATER	<input type="checkbox"/> NATURAL GAS	<input type="checkbox"/> CO2	<input type="checkbox"/> OIL
<input type="checkbox"/> POTASH	<input type="checkbox"/> COAL	<input type="checkbox"/> TRONA	<input type="checkbox"/> ZEOLITE
<input type="checkbox"/> URANIUM	<input type="checkbox"/> NONE	<input type="checkbox"/> OTHER	

Is the proposed well in a Helium production area? * ☐ Yes ☐ No

Use Existing Well Pad? * ☐ Yes ☐ No

Type of Well Pad * ☐ Single ☐ Multiple

Well Class *

<input checked="" type="radio"/> VERTICAL	<input type="radio"/> DIRECTIONAL	<input type="radio"/> HORIZONTAL
<input type="radio"/> SIDETRACK	<input type="radio"/> DUAL-COMPLETION	<input type="radio"/> MULTI-LATERAL

Well Work Type * ☒ Drill ☐ Reenter

Well Type *

Well sub-type *

Distance to town (miles)

Distance to nearest well (feet) *

Distance to lease line (feet) *

Reservoir well spacing assigned acres measurement *

Well Plat * ?

Well work start date * Duration (days) *

After the Operator clicks the **Next** button a new screen will appear with the **Application** module, the **Section 3 – Well Location Table** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 26 – Electronic APD Section 3 – Well Location Table

Section 3 - Well Location Table

Survey Type * -- Please Select --

Datum * ☐ NAD 27 ☐ NAD 83 Vertical Datum * ☐ NGVD 29 ☐ NAVD 88

Survey number

Based on well class and survey type, the following fields are required

Copy <input type="checkbox"/>	State *	Meridian *	County *
Clear Copy <input checked="" type="checkbox"/>	Latitude *		Longitude *
	Elevation (MSL) *		
	MD (ft.) *		TVD (ft.) *
SHL	Lease Type *		
	Lease # *		

Copy <input type="checkbox"/>	State *	Meridian *	County *
Clear Copy <input checked="" type="checkbox"/>	Latitude *		Longitude *
	Elevation (MSL)		
	MD (ft.) *		TVD (ft.) *
BHL	Lease Type *		
Leg# 1	Lease # *		

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear in the **Drilling Plan** module, the **Section 1 – Geologic Formations** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

6.11.2 APD Drilling Plan Form Sections

The Drilling Plan portion of the APD is made up of eight screens to address the eight point drilling plan. The overview below identifies the eight screens.

Figure 27 - Overview of the Drilling Plan Forms

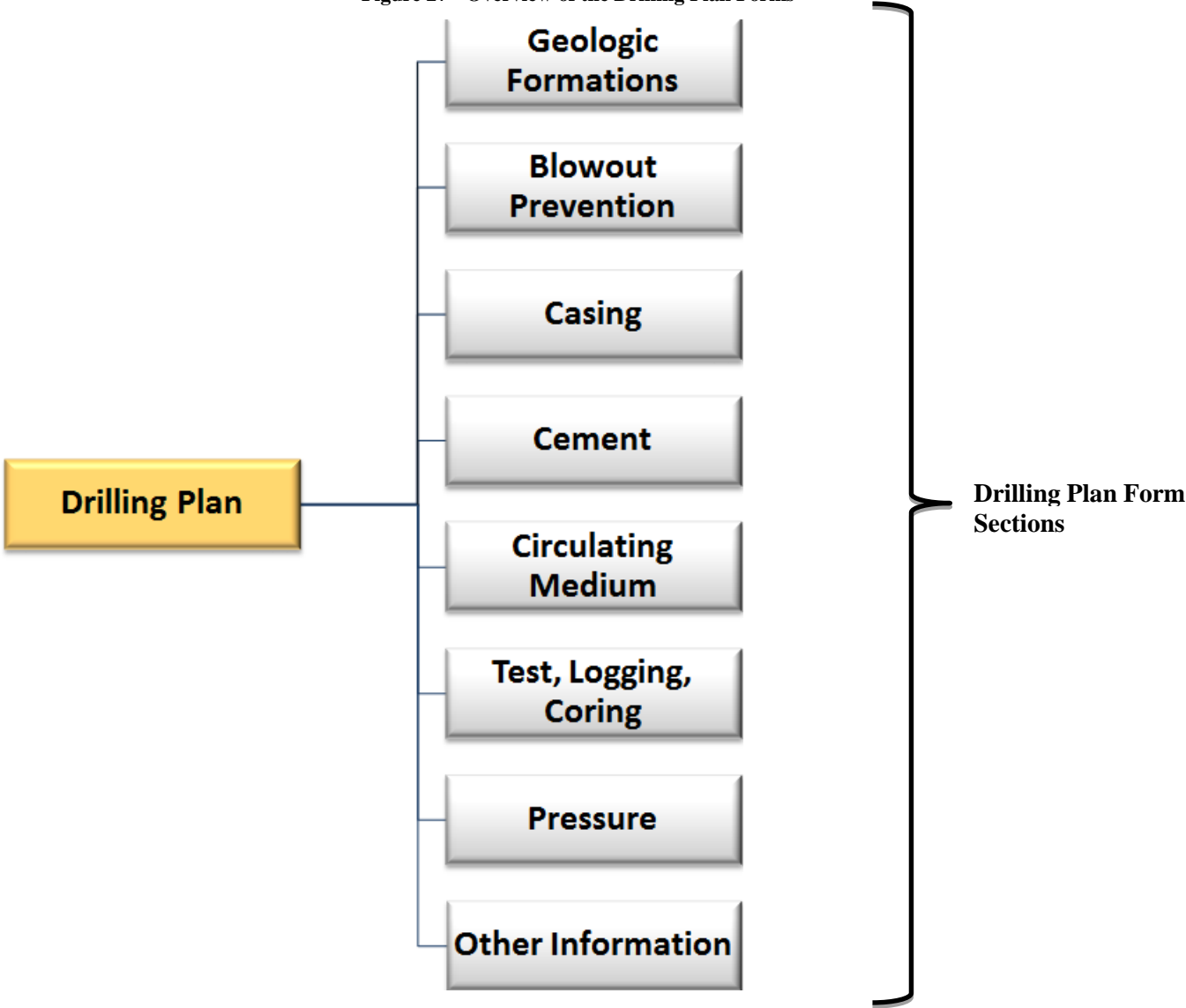


Figure 28 – Electronic APD Drilling Plan Section 1 – Geologic Formation

1

2

3

4

5

6

7

8

Section 1 - Geologic Formations

Add...

Back

Validate

Save

Save & Exit

Next

Edit Formation

ID

Surface formation

Name *

-- Select --

☐ LIMESTONE

☐ SHALE

☐ MUDSTONE

☐ SANDSTONE

☐ DOLOMITE

☐ GRANITE

☐ VOLCANIC

☐ ALLUVIUM

☐ SALT

☐ HALITE

☐ ANHYDRITE

☐ GYPSUM

☐ POTASH

☐ CHERT

☐ COAL

☐ BRECCIA

☐ GNEISS

☐ SILTSTONE

☐ SCHIST

☐ GILSONITE

☐ CONGLOMERATE

☐ MARL

☐ OTHER

Elevation (MSL) *

True Vertical Depth *

Measured Depth *

Is this a producing formation? *

☐ Yes

☐ No

☒ USEABLE WATER

☐ NATURAL GAS

☐ CO2

☐ OIL

☐ POTASH

☐ COAL

☐ TRONA

☐ ZEOLITE

☐ URANIUM

☐ NONE

☐ OTHER

Mineral Resources *

Save

Cancel

After the Operator clicks the **Next** button a new screen will appear in the **Drilling Plan** module, the **Section 2 – Blowout Prevention Table** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

The screenshot displays the AFMSS II software interface. At the top, a progress bar shows eight steps, with step 2 highlighted in green. Below the progress bar, a tab labeled 'Section 2 - Blowout Prevention Table' is active, containing an 'Add...' button. Below this tab are five buttons: 'Back', 'Validate', 'Save', 'Save & Exit', and 'Next'. An 'Edit BOP' dialog box is open in the foreground. The dialog box has a title bar with a close button (X). Inside, the 'Blowout Preventer' section contains the following fields: 'Pressure Rating (PSI) *' with a dropdown menu showing '-Select-', 'Rating Depth *' with a text input field, 'Equipment *' with a text input field and a help icon (?), 'Requesting Variance? *' with radio buttons for 'Yes' and 'No', and 'Testing Procedure *' with a text input field. At the bottom of the dialog box are 'Save' and 'Cancel' buttons.

After the Operator clicks the **Next** button a new screen will appear in the **Drilling Plan** module, the **Section 3 – Casing** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 29 – Electronic APD Drilling Plan Section 3 – Casing

Section 3 - Casing

Add Casing...

Back Validate Save Save & Exit Next

Edit Casing Table entry

String Type * Hole Size *

Top setting depth MD * Top setting depth TVD * Top setting depth MSL

Bottom setting depth MD * Bottom setting depth TVD * Bottom setting depth MSL

Calculated casing length MD

Size * Grade *

Weight (lbs/ft) * Joint *

Condition * ☐ New ☐ Used

Standard * ☐ API ☐ Non-API

Tapered String? * ☐ Yes ☐ No

Safety factors

Collapse Design Safety Factor * Burst Design Safety Factor *

Body Tensile Design Safety Factor type * ☐ Dry ☐ Buoyant Body Tensile Design Safety Factor *

Joint Tensile Design Safety Factor type * ☐ Dry ☐ Buoyant Joint Tensile Design Safety Factor *

Save Cancel

After the Operator clicks the **Next** button a new screen will appear in the **Drilling Plan** module, the **Section 4 – Cement** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Section 4 - Cement

Please provide the following cement details for each casing:

Casing String Type PRODUCTION Add Segment...

Segment 1

Stage Tool Depth

Lead

Top MD of Segment	Bottom MD of Segment	Cement Type
Additives	Quantity (sks)	Yield (cu.ft./sk)
Density (lbs./gal)	Volume (cu.ft.)	Percent Excess

Edit

Figure 30 - Electronic APD Drilling Plan Section 4 - Cement

Edit Cement Table entry

Casing String Type PRODUCTION

Segment 1

Stage Tool Depth

Lead

Top MD of Segment *	Bottom MD of Segment *	Cement Type *
Additives *	Quantity (sks) *	Yield (cu.ft./sk) *
Density (lbs./gal) *	Volume (cu.ft.) *	Percent Excess

Add Tail

Save Cancel

After the Operator clicks the **Next** button a new screen will appear in the **Drilling Plan** module, the **Section 5 – Cement** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 31 – Electronic APD Drilling Plan Section 5 – Circulating Medium

Section 5 - Circulating Medium

☐ Open Will an air or gas system be used? * ☐ Yes ☐ No

Mud System type * ☐ Closed

☐ Semi-Closed

Describe what will be on location to control well or mitigate other conditions *

Describe the mud monitoring system utilized *

Circulating Medium Table

Add...

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear in the **Drilling Plan** module, the **Section 6 – Test, Logging, Coring** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 32 – Electronic APD Drilling Plan Section 6 – Testing, Logging, Coring

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures *

Open and cased hole logs run in the well *

Coring operation description for the well *

☐ CALIPER ☐ CEMENT BOND LOG ☐ CNL/FDC
☐ COMPENSATED DENS LOG ☐ COMPENSATED NEUTRON LOG ☐ COMPUTER GENERATED LOG
☐ DIP METER LOG ☐ DIRECTIONAL SURVEY ☐ DUAL INDUCTION/MICRO-RESISTIVITY
☐ DUAL LATERAL LOG/MICRO-SPHERICALLY FOCUSED ☐ ELECTRIC LOG ☐ FORMATION DENSITY COMPENSATED LOG
☐ GAMMA RAY LOG ☐ MEASUREMENT WHILE DRILLING ☐ MUD LOG/GEOLOGIC LITHOLOGY LOG
☐ OTHER ☐ POROSITY-RESISTIVITY LOG ☐ SIDEWALL NEUTRON LOG
☐ SONIC LOG ☐ SPONTANEOUS POTENTIAL LOG ☐ TEMPERATURE LOG

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear in the **Drilling Plan** module, the **Section 7 – Pressure** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 33 – Electronic APD Drilling Plan Section 7 – Pressure

Section 7 - Pressure

Anticipated Bottom Hole Pressure * Anticipated Surface Pressure (psig)

Anticipated Bottom Hole Temperature (Deg F) *

Anticipated abnormal pressures, temperatures, or potential geologic hazards? * ☐ Yes ☐ No

Hydrogen sulfide drilling operations plan required? * ☐ Yes ☐ No

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 1 – Existing Roads** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

6.11.3 APD Surface Use Plan of Operations Form Section

The Surface Use Plan of Operations (SUPO) section of the APD consists of twelve screens. Below is an overview of the twelve screens with the SUPO section.

Figure 34 - Overview of APD SUPO Form Sections

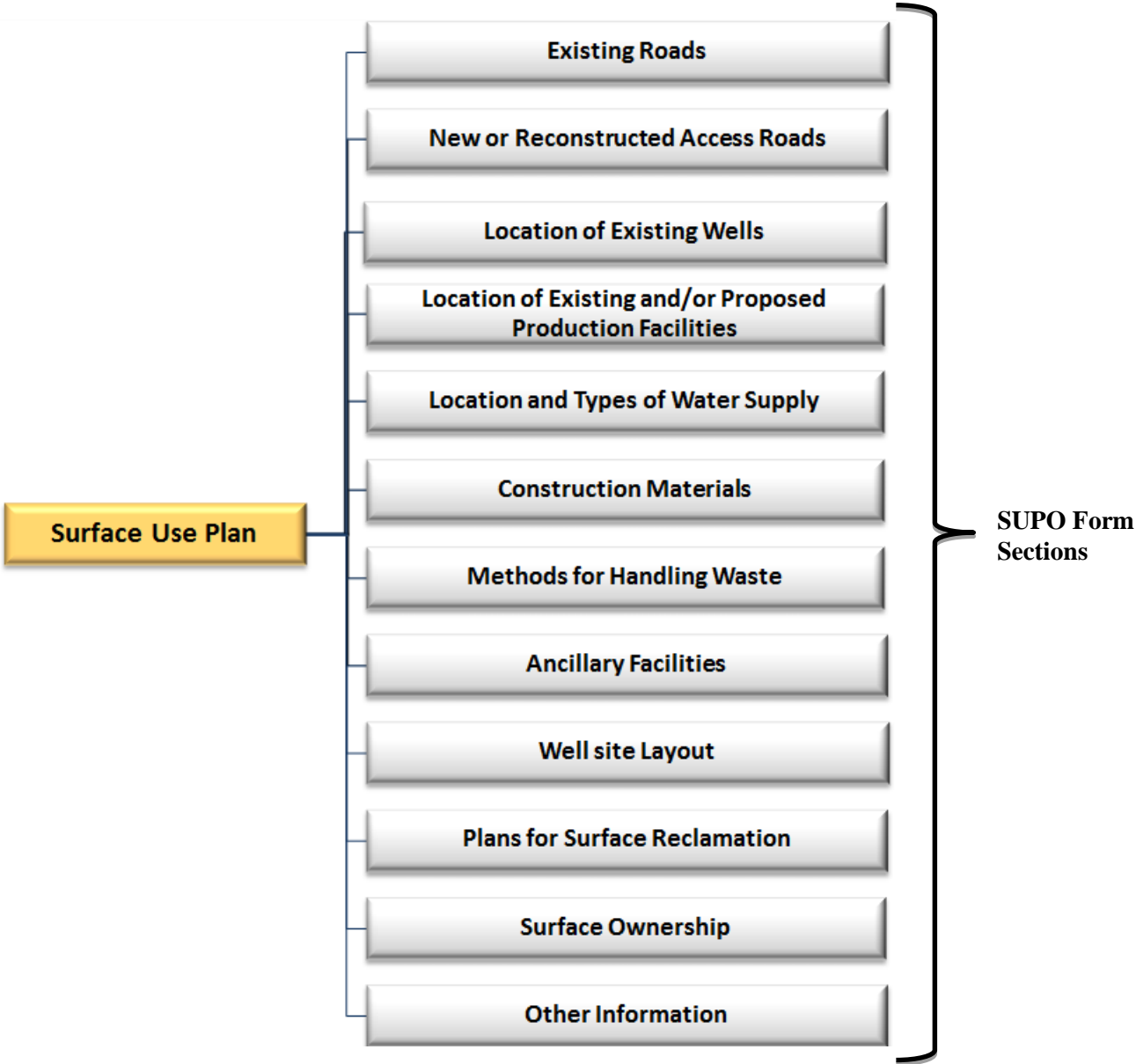


Figure 35 – Electronic APD SUPO Section 1 – Existing Roads

The screenshot displays a web-based form titled "Section 1 - Existing Roads". At the top, a horizontal navigation bar contains 12 numbered circles, with the first circle (1) highlighted in green. Below this bar, the form is enclosed in a light blue border. The first question is "Will existing roads be used? *" with radio buttons for "Yes" (selected) and "No". The second question is "Existing Road Map *" with a text input field and an "Add Attachment..." button. The third question is "Existing Road Purpose *" with two checkboxes: "ACCESS" and "FLUID TRANSPORT". The fourth question is "ROW(s) Exist? *" with radio buttons for "Yes" and "No". The fifth question is "Do the existing roads need to be improved? *" with radio buttons for "Yes" and "No". At the bottom of the form, there are five buttons: "Back", "Validate", "Save", "Save & Exit", and "Next".

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 2 – New or Reconstructed Access Roads** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 36 – Electronic APD SUPO Section 2 – New or Reconstructed Access Roads

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? * ☒ Yes ☐ No

New Road Map * [Add Attachment...](#)

New road type(s) * ☐ COLLECTOR ☐ RESOURCE ☐ LOCAL
☐ TWO-TRACK ☐ SNOW TRAIL ☐ ICE ROAD

Length * ☐ Feet ☐ Miles

Construction Width (ft.) * Travel Width (ft) *

Max slope (%) * Max grade (%) *

☐ CULVERT ☐ WATERDIP

New road drainage crossing * ☐ LOW WATER ☐ CROSSING
☐ BRIDGE ☐ OTHER

Drainage Control comments *

Army Corp of Engineers (ACOE) permit required? * ☐ Yes ☐ No

Road Drainage Control Structures (DCS) description

or

Road Drainage Control Structures (DCS) attachment [Add Attachment...](#)

New road access erosion control *

New road access plan or profile prepared? * ☐ Yes ☐ No

Access road engineering design? * ☐ Yes ☐ No

Turnouts? * ☐ Yes ☐ No

☐ Gravel

Access surfacing type * ☐ None
☐ Other

☐ Onsite

Access topsoil source * ☐ Offsite
☐ Both Onsite and Offsite

Access other construction information

Access miscellaneous information

[Access additional attachments](#)

[Add Access Road Attachment...](#)

[Back](#) [Validate](#) [Save](#) [Save & Exit](#) [Next](#)

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 3 – Location of Existing Wells** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 37 – Electronic APD SUPO Section 3 – Location of Existing Wells

The screenshot shows a progress bar at the top with 12 numbered circles. Circle 3 is highlighted in green, indicating the current section. Below the progress bar, the title "Section 3 - Location of Existing Wells" is displayed. The form contains two fields: "Existing Wells map? *" with radio buttons for "Yes" (selected) and "No", and "Existing Well Map *" with an "Add Attachment..." button. At the bottom, there are five buttons: "Back", "Validate", "Save", "Save & Exit", and "Next".

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 4 – Location of Existing and/or Proposed Production Facilities** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 38 – Electronic APD SUPO Section 4 – Location of Existing and/or Proposed Production Facilities

The screenshot shows a progress bar at the top with 12 numbered circles. Circle 4 is highlighted in green, indicating the current section. Below the progress bar, the title "Section 4 - Location of Existing and/or Proposed Production Facilities" is displayed. The form contains two fields: "Submit or defer a proposed production facilities plan? *" with radio buttons for "Submit" (selected) and "Defer", and "Production Facilities map *" with an "Add Attachment..." button. At the bottom, there are five buttons: "Back", "Validate", "Save", "Save & Exit", and "Next".

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 5 – Location and Types of Water Supply** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 39 – Electronic APD SUPO Section 5 – Location and Types of Water Supply

Section 5 - Location and Types of Water Supply

Water Source table

Total Water Source Volume [Add...](#)

Water source and transportation map * [Add Attachment...](#)

Water source comments

New water well? * ☐ Yes ☐ No

[Back](#) [Validate](#) [Save](#) [Save & Exit](#) [Next](#)

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 6 – Construction Materials** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 40 – Electronic APD SUPO Section 6 – Construction Materials

Section 6 - Constuction Materials

Are you using any construction materials? * ☒ Yes ☐ No

Construction Materials description *

Construction materials source location attachment [Add Attachment...](#)

[Back](#) [Validate](#) [Save](#) [Save & Exit](#) [Next](#)

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 7 – Methods of Handling Waste** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 41 – Electronic APD SUPO Section 7 – Methods of Handling Waste

Section 7 - Methods for Handling Waste

Add...

Reserve Pit

Reserve Pit being used? * ☐ Yes ☒ No

Cuttings Area

Cuttings Area being used? * ☐ Yes ☒ No Are you storing cuttings on location? * ☒ Yes ☐ No

Description of cuttings location *

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 8 – Ancillary Facilities** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 42 – Electronic APD SUPO Section 8 – Ancillary Facilities

Section 8 - Ancillary Facilities

Are you requesting any ancillary facilities? * ☐ Yes ☒ No

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 9 – Well Site Layout** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 43 – Electronic APD SUPO Section 9 – Well Site Layout

1 2 3 4 5 6 7 8 9 10 11 12

Section 9 - Well Site Layout

Well Site Layout Diagram *

Add Attachment...

Comments

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 10 – Plans for Final Surface Reclamation** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 44 – Electronic APD SUPO Section 10 – Plans for Final Surface Reclamation Part I

1 2 3 4 5 6 7 8 9 10 11 12

Section 10 - Plans for Final Surface Reclamation

☐ NEW [Copy Previous Reclamation Plan](#) ?
☐ PAD EXPANSION [Copy Approved Reclamation Plan](#) ?
☐ NO NEW SURFACE DISTURBANCE

Recontouring attachment [Add Attachment...](#)

Drainage/Erosion control construction *

Drainage/Erosion control reclamation *

Wellpad long term disturbance (acres) *		Wellpad short term disturbance (acres) *	
Access road long term disturbance (acres) *		Access road short term disturbance (acres) *	
Pipeline long term disturbance length (feet) *		Pipeline short term disturbance length (feet) *	
Pipeline long term disturbance width (feet) *		Pipeline short term disturbance width (feet) *	
Pipeline long term disturbance (acres) *		Pipeline short term disturbance (acres) *	
Other long term disturbance (acres) *		Other short term disturbance (acres) *	
Total long term disturbance		Total short term disturbance	

Disturbance comments

Reconstruction method *

Topsoil redistribution *

Soil treatment *

Existing Vegetation at the well pad

or

Existing Vegetation at the well pad attachment [Add Attachment...](#)

Existing Vegetation Community at the road

or

Existing Vegetation Community at the road attachment [Add Attachment...](#)

Figure 45 – Electronic APD SUPO Section 10 – Plans for Final Surface Reclamation Part II

Existing Vegetation Community at the pipeline		<input type="text"/>
or		
Existing Vegetation Community at the pipeline attachment	<input data-bbox="581 359 764 390" type="button" value="Add Attachment..."/>	

Existing Vegetation Community at other disturbances		<input type="text"/>
or		
Existing Vegetation Community at other disturbances attachment	<input data-bbox="581 606 764 638" type="button" value="Add Attachment..."/>	

Non native seed used? ☐ Yes ☐ No

Will seedlings be transplanted for this project? ☐ Yes ☐ No

Will seed be harvested for use in site reclamation? ☐ Yes ☐ No

Seed Management

Seed Table

Seed summary

Seed type	Pounds/Acre
No Data Found	
Total pounds/Acre	

Seed reclamation attachment

Operator contact/Responsible official contact info

First Name	<input type="text"/>	Last Name	<input type="text"/>
Phone (nnnnnnnnnn)	<input type="text"/>	Email	<input type="text"/>

Seedbed prep

Seed BMP

Seed method

Existing invasive species? * ☐ Yes ☐ No

Figure 46 Figure 69 – Electronic APD SUPO Section 10 – Plans for Final Surface Reclamation Part III

Weed treatment plan description

or

Weed treatment plan attachment [Add Attachment...](#)

Monitoring plan description

or

Monitoring plan attachment [Add Attachment...](#)

Success standards *

Pit closure description

or

Pit closure attachment [Add Attachment...](#)

[Back](#) [Validate](#) [Save](#) [Save & Exit](#) [Next](#)

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 11 – Surface Ownership** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 47 – Electronic APD SUPO Section 11 – Surface Ownership

1 2 3 4 5 6 7 8 9 10 11 12

Section 11 - Surface Ownership

Add...

Edit Disturbance/ Surface Owner

Disturbance type * -- Select --

Surface Owner(s) *

☐ BUREAU OF INDIAN AFFAIRS ☐ BUREAU OF LAND MANAGEMENT ☐ BUREAU OF RECLAMATION

☐ CORPS OF ENGINEERS ☐ PRIVATE OWNERSHIP ☐ MILITARY

☐ STATE GOVERNMENT ☐ U.S. DEPARTMENT OF DEFENSE ☐ U.S. FOREST SERVICE

☐ U.S. FISH AND WILDLIFE SERVICE ☐ U.S. NATIONAL PARK SERVICE ☐ OTHER

Save Cancel

After the Operator clicks the **Next** button a new screen will appear in the **Surface Use Plan of Operations (SUPO)** module, the **Section 12 – Other Information** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 48 – Electronic APD SUPO Section 12 – Other Information

The screenshot displays a web-based form for 'Section 12 - Other Information'. At the top, a horizontal navigation bar contains 12 numbered circles. Circles 1 through 11 are light blue, while circle 12 is green. Below the navigation bar, the form title 'Section 12 - Other Information' is shown in a grey box. The form contains the following elements: a question 'Right of Way needed? *' with radio button options for 'Yes' and 'No'; a text input field labeled 'SUPO Additional Information'; another question 'Use a previously conducted onsite? *' with radio button options for 'Yes' and 'No'; and a large rectangular area with a blue button labeled 'Add Other Attachment...'. At the bottom of the form, there is a row of five blue buttons: 'Back', 'Validate', 'Save', 'Save & Exit', and 'Next'.

After the Operator clicks the **Next** button a new screen will appear in the **Produced Water Disposal (PWD)** module, the **Section 1 – General** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

6.11.4 APD Produced Water Disposal Form Section

The Produced Water Disposal (PWD) section of the APD consists of eight screens. The overview of the PWD screens is below.

Figure 49 - Overview of APD Produced Water Disposal Form Sections

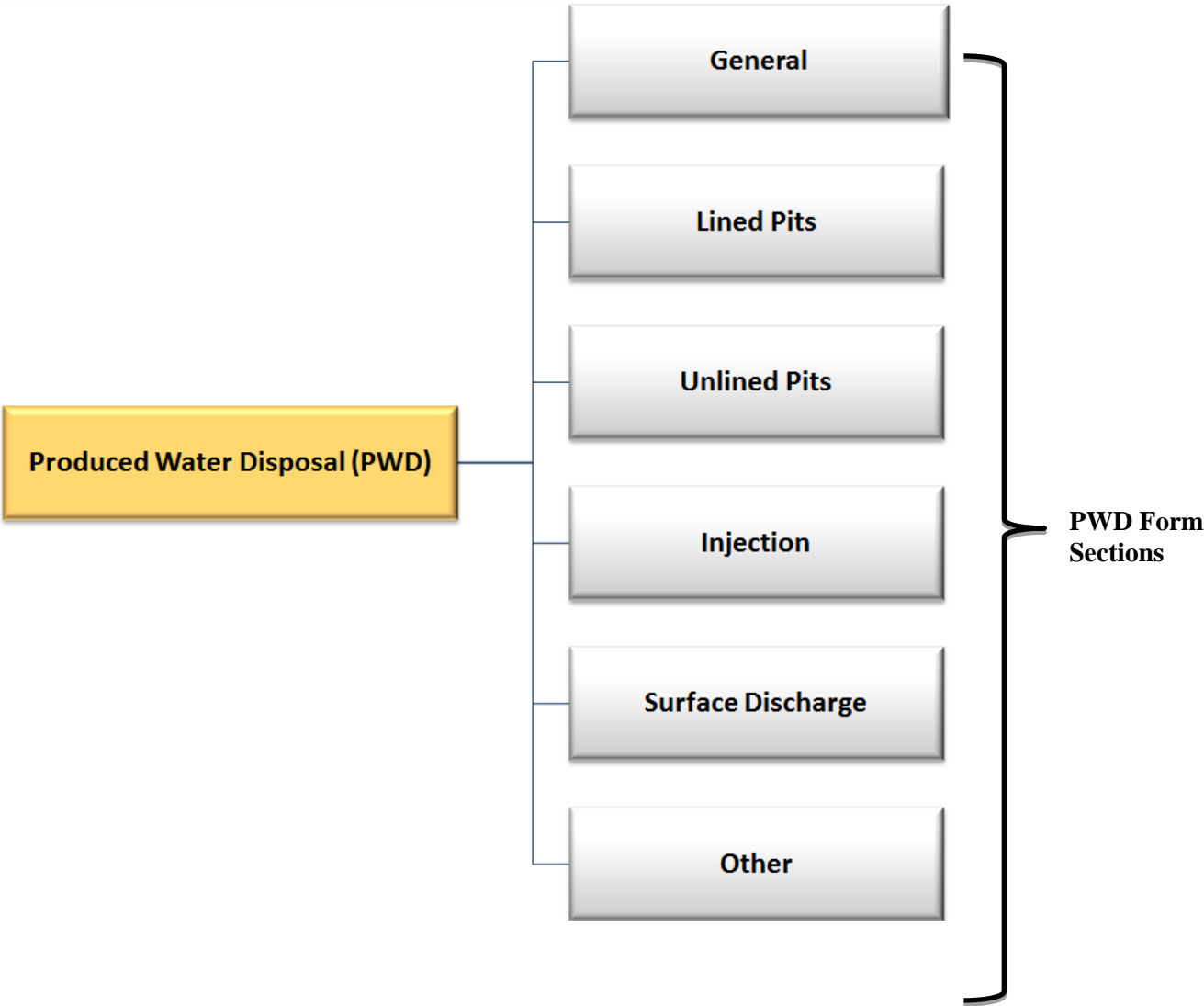


Figure 50 – Electronic APD PWD Section 1 – General

1 2 3 4 5 6

Section 1 - General

Would you like to address long-term produced water disposal? * ☐ Yes ☐ No

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear in the **Produced Water Disposal (PWD)** module, the **Section 2 – Lined Pits** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 51 – Electronic APD PWD Section 2 – Lined Pits

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? * ☒ Yes ☐ No

Produced Water Disposal (PWD) Location * ☐ On-Lease/Unit ☐ Off-Lease

☐ BIA ☐ BLM ☐ BOR ☐ PWD disturbance (acres) *
☐ COE ☐ FEE ☐ MILITARY
☐ STATE ☐ USDOD ☐ USFS
☐ USFWS ☐ USNPS ☐ OTHER

PWD surface owner *

Lined pit PWD on or off channel * ☐ On channel ☐ Off channel

Lined pit PWD discharge volume (bbl/day) *

Lined pit specifications * [Add Attachment...](#)

Pit liner description *

Pit liner manufacturers information * [Add Attachment...](#)

☐ Hauled to Disposal Facility
 Precipitated solids disposal * ☐ Solidification
☐ Other

Precipitated solids disposal permit * [Upload file...](#)

Lined pit precipitated solids disposal schedule

or

Lined pit precipitated solids disposal schedule attachment [Add Attachment...](#)

Lined pit reclamation description

or

Lined pit reclamation attachment [Add Attachment...](#)

Leak detection system description

or

Leak detection system attachment [Add Attachment...](#)

Lined pit Monitor description


or

Lined pit Monitor attachment [Upload file...](#)

Do you have a reclamation bond for the pit? * ☐ Yes ☐ No

[Add Lined Pit](#)

[Back](#) [Validate](#) [Save](#) [Save & Exit](#) [Next](#)

Delete 

After the Operator clicks the **Next** button a new screen will appear in the **Produced Water Disposal (PWD)** module, the **Section 3 – Unlined Pits** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 52 – Electronic APD PWD Section 3- Unlined Pits

1 2 3 4 5 6

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? ☒ Yes ☐ No

Produced Water Disposal (PWD) Location * ☐ On-Lease/Unit ☐ Off-Lease

☐ BIA ☐ BLM ☐ BOR ☐ COE ☐ FEE ☐ MILITARY ☐ STATE ☐ USDOD ☐ USFS ☐ USFWS ☐ USNPS ☐ OTHER

PWD surface owner *

PWD disturbance (acres) *

Unlined pit PWD on or off channel * ☐ On channel ☐ Off channel

Unlined pit PWD discharge volume (bbl/day) *

Unlined pit specifications * [Add Attachment...](#)

Precipitated solids disposal * ☐ Hauled to Disposal Facility ☐ Solidification ☐ Other

Precipitated solids disposal permit * [Upload file...](#)

Unlined pit precipitated solids disposal schedule

or

Unlined pit precipitated solids disposal schedule attachment [Add Attachment...](#)

Unlined pit reclamation description

or

Unlined pit reclamation attachment [Add Attachment...](#)

Unlined pit Monitor description

or

Unlined pit Monitor attachment [Upload file...](#)


Do you propose to put the produced water to beneficial use? * ☐ Yes ☐ No

Estimated depth of the shallowest aquifer (ft) *

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected? *

☐ Yes ☐ No

Do you have a reclamation bond for the pit? * ☐ Yes ☐ No

Delete 

[Add Unlined Pit](#)

[Back](#) [Validate](#) [Save](#) [Save & Exit](#) [Next](#)

After the Operator clicks the **Next** button a new screen will appear in the **Produced Water Disposal (PWD)** module, the **Section 4 – Injection** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 53 – Electronic APD PWD Section 4 – Injection

Section 4 - Injection

Would you like to utilize Injection PWD options? * ☒ Yes ☐ No

Produced Water Disposal (PWD) Location * ☐ On-Lease/Unit ☐ Off-Lease

☐ BIA ☐ BLM ☐ BOR ☐ COE ☐ FEE ☐ MILITARY ☐ STATE ☐ USDOD ☐ USFS ☐ USFWS ☐ USNPS ☐ OTHER

PWD surface owner *

PWD disturbance (acres) *

Injection PWD discharge volume (bbl/day) *

Injection well mineral owner * ☐ Federal ☐ State ☐ Fee ☐ New ☐ Existing ☐ Conversion

Underground Injection Control (UIC) Permit? * ☐ Yes ☐ No

Delete

Add Injection Well

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear in the **Produced Water Disposal (PWD)** module, the **Section 5 – Surface Discharge** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 54 – Electronic APD PWD Section 5 – Surface Discharge

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? * ☒ Yes ☐ No

Produced Water Disposal (PWD) Location * ☐ On-Lease/Unit ☐ Off-Lease

☐ BIA ☐ BLM ☐ BOR ☐ COE ☐ FEE ☐ MILITARY ☐ STATE ☐ USDOD ☐ USFS ☐ USFWS ☐ USNPS ☐ OTHER

PWD surface owner *

PWD disturbance (acres) *

Surface discharge PWD discharge volume (bbl/day) *

Surface Discharge NPDES Permit? * ☐ Yes ☐ No

Surface Discharge site facilities information

Surface discharge site facilities map *

After the Operator clicks the **Next** button a new screen will appear in the **Produced Water Disposal (PWD)** module, the **Section 6 – Other** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

Figure 55 – Electronic APD PWD Section 6 – Other

Section 6 - Other

Would you like to utilize Other PWD options? * ☒ Yes ☐ No

Produced Water Disposal (PWD) Location *

☐ On-Lease/Unit ☐ Off-Lease

☐ BIA ☐ BLM ☐ BOR

PWD surface owner *

☐ COE ☐ FEE ☐ MILITARY ☐ STATE ☐ USDOD ☐ USFS ☐ USFWS ☐ USNPS ☐ OTHER

PWD disturbance (acres) *

Other PWD discharge volume (bbl/day) *

Other PWD type description *

Other PWD type attachment

Have other regulatory requirements been met? * ☐ Yes ☐ No

Other regulatory requirements attachment

After the Operator clicks the **Next** button a new screen will appear in the **Bonds** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

6.11.5 Bond Section

Figure 56 – Electronic APD Bond Information

The screenshot shows a web form titled "Bond Information" in a blue header bar. The form contains the following elements:

- A label "Federal/Indian APD" followed by two radio button options: ☒ FEDERAL and ☐ INDIAN.
- A label "BLM Bond number *" followed by an empty text input field.
- A label "Do you have a reclamation bond? *" followed by two radio button options: ☐ Yes and ☒ No.

At the bottom of the form, there are five blue buttons: "Back", "Validate", "Save", "Save & Exit", and "Next".

After the Operator clicks the **Next** button a new screen will appear and the **Operator Certification** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

6.11.6 Operator Certification Section

Figure 57 – Electronic APD Operator Certification

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Operator electronic signature: * Electronically submitted **Sign** Signed on:

Name Jessie Gonzales

Title Business Analyst

Street Address

City Denver State CO Zip 80225

Phone (303) 236-1234

Email address jbgonzales@blm.gov

Field Representative (if different from above)

Representative Name (First) (Last)

Street Address

City State --Select-- Zip

Phone (nnnnnnnnnn)

Email address

Back Validate Save Save & Exit Next

After the Operator clicks the **Next** button a new screen will appear and the **Application Fee** screen will load. The Operator will enter the appropriate information into the necessary fields (note the required fields are marked with an asterisk).

6.11.7 Application Fee

Figure 58 – Electronic APD Application Fee

The screenshot shows a web form titled "Payment" in a blue tab. Below the tab is a label "APD Fee Payment Method *" followed by two radio button options: "PAY.GOV" and "BLM DIRECT". At the bottom of the form are five blue buttons: "Back", "Validate", "Save", "Save & Exit", and "Next".

Payment

APD Fee Payment Method * ☐ PAY.GOV ☐ BLM DIRECT

Back Validate Save Save & Exit Next

The Operator has successfully completed the APD when all the modules on the left-hand side have the Completed circle checkmark and each module is listed at 100%.

The APD application fee can be paid in two ways:

- Pay.gov
- BLM Direct

The APD application fee can be paid by selecting the hyperlink to the Pay.gov website. You will be asked to enter a set of questions then pay by credit card. Tracking ID number will be given to you by Pay.gov and you will enter that into the field on the Application Payment Form.

Figure 59 - Image of the Pay.gov screen



Provided by the US Department of the Treasury
[Home](#) > Bureau of Land Management (BLM) Application for Permit to Drill (APD) Fee



Bureau of Land Management
Application for Permit to Drill (APD) Fee

The 2010 Interior Appropriations Act (Act), signed by the President on October 30, 2009, established increased APD processing funding for the Bureau of Land Management. Effective November 2, 2009, every new Application for Permit to Drill (APD), including those on Indian Minerals, is to be accompanied by a non-refundable filing fee in the amount of \$6,500.

* Required Field

* APD ID:	<input type="text"/>
* BLM Office:	<input type="text"/>
* Company:	<input type="text"/>
* Address:	<input type="text"/>
* City:	<input type="text"/>
* Country:	<input type="text" value="United States"/>
* State:	<input type="text"/>
* Postal Code:	<input type="text"/>
* Lease Number:	<input type="text"/>
Agreement Number (optional):	<input type="text"/>
* Well Name:	<input type="text"/>
* Well Number:	<input type="text"/>
Amount:	<input type="text" value="\$6,500.00"/>

It may take several minutes to process the form. Please be patient.

Note: Please avoid navigating the site using your browser's Back Button - this may lead to incomplete data being transmitted and pages being loaded incorrectly. Please use the links provided whenever possible.

Figure 60 - Payment via BLM Direct

59 Federal/Indian APD ☒ Federal ☐ Indian

Well Number 234 Well Work Type Drill

- ENHANCED RECOVERY

[Report](#) [Drilling Plan Report](#) [SUPO Report](#)

Payment

APD Fee Payment Method * ☐ PAY.GOV ☒ BLM DIRECT CBS Receipt number * [?](#)

The APD application fee can be paid at a BLM field office. After making the payment you will be given a CBS Receipt Number and you will enter that into the field on the Application Payment Form.

Figure 61 – APD Left-Hand Menu Options

Application
100 %

Drilling Plan
100 %

Surface Use Plan of
Operations
100 %

Produced Water
Disposal
100 %

Bonds
100 %

Operator
Certification
100 %

Application Fee
100 %

Current section

Completed

Partially complete

Not started

[APD Print Report](#)

[APD Attachments](#)

[3160 Form](#)

Submit APD

Cancel

6.11.8 10-Day Letter

An example of the 10 day letter is shown below.

The date listed on the Prepare 10-Day Letter will be the date the officer signed the document and not the current date. Once it is signed, the date will remain locked in. The date is formatted as mm/dd/yyyy.

Legal Description:

- Should display the SHL as: T12N, R22E, Sect 12, NWNW (or L1 or R13 if there are lot of tract numbers)

Addendum – Incomplete Deficient

Addendum – Missing necessary information

- On the page for "Missing Necessary Information", the statement for "Concurrence from these Surface Management Agency is required (Adjudicator alteration):" If the Surface Management Agency selected from the pick list is "Bureau of Land Management", it should not display anything under this section. If the SMA is any other agency selected on the pick list, such as Bureau of Indian Affairs, State Government, Private Surface Owner (FEE), etc., then this section should display the correct value. If there are multiple SMAs selected on the pick list, then it would have to list all of the SMAs. BLM does not get concurrence from our own agency so BLM should never be displayed.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
FARMINGTON FIELD OFFICE
6251 COLLEGE BLVD STE
FARMINGTON, NM 87402
<http://www.blm.gov/nm>



In Reply To:
3160
[]

08/07/2015

Attn: Jessie Gonzales
DANIELS COMPANY
1020 OPAL STREET
DENVER, CO 80020

Re: Receipt and Acceptability of Application for Permit to Drill (APD)

Well Number / Name: **NOS 2015 / OPERATOR NOS**
Legal Description: T, R, SEC ,
County, State: ,
Date APD Received: 08/07/2015

Dear Operator:

This is the 10-day letter pursuant to Onshore Oil and Gas Order, Number 1, Section III.E.2.a.

The BLM received your Application for Permit to Drill (APD), for the referenced well, on 08/07/2015. The BLM reviewed the APD package pursuant to part III.B.2 of Onshore Oil and Gas Order No.1 and it is:

1. ☒ Incomplete/Deficient (*The BLM cannot process the APD until you submit the identified items within 45 calendar days of the date of this notice or the BLM will return your APD.*)

- ☒ Well Plat
- ☒ Drilling Plan
- ☒ Surface Use Plan of Operations (SUPO)
- ☐ Certification of Private Surface Owner Access Agreement
- ☐ Bonding
- ☒ Onsite (The BLM has scheduled the onsite to be on 08/07/2015)
This requirement is exempt of the 45-day timeframe to submit deficiencies. This requirement will be satisfied on the date of the onsite.

[Please See Addendum for further clarification of deficiencies]

2. ☒ Missing Necessary Information (*The BLM can start, but cannot complete the analysis until you submit the identified items. This is an early notice and the BLM will restate this in a 30-day deferral letter, if you have not submitted the information at that time. You will have two (2) years from the date of the deferral to submit this information or the BLM will deny your APD.*)

- ☐ Designation of Operator (*if Indian*)
- ☒ Other surface use permits
- ☐ Water Management Plan
- ☐ Alternative Bonding
- ☐ Air Quality Modeling
- ☒ Other

[Please See Addendum for further clarification of deficiencies]

- ☐ Surface Management Plan
- ☐ Alternative Bonding
- ☐ Air Quality Modeling
- ☒ Other

[Please See Addendum for further clarification of deficiencies]

[Please See Addendum for further clarification of deficiencies]

NOTE: The BLM will return your APD package to you, unless you correct all deficiencies identified above (item 1) within 45 calendar days.

- The BLM will not refund an APD processing fee or apply it to another APD for any returned APD.

Extension Requests:

- If you know you will not be able to meet the 45-day timeframe for reasons beyond your control, you must submit a written request through email/standard mail for extension prior to the 45th calendar day from this notice, **09/21/2015**.
- The BLM will consider the extension request if you can demonstrate your diligence (providing reasons and examples of why the delay is occurring beyond your control) in attempting to correct the deficiencies and can provide a date by which you will correct the deficiencies. If the BLM determines that the request does not warrant an extension, the BLM will return the APD as incomplete after the 45 calendar days have elapsed.
 - The BLM will determine whether to grant an extension beyond the required 45 calendar days and will document this request in the well file. If you fail to submit deficiencies by the date defined in the extension request, the BLM will return the APD.

APDs remaining Incomplete:

- If the APD is still not complete, the BLM will notify you and allow 10 additional business days to submit a written request to the BLM for an extension. The request must describe how you will address all outstanding deficiencies and the timeframe you request to complete the deficiencies.
 - The BLM will consider the extension request if you can prove your diligence (providing reasons and examples of why the delay is occurring) in attempting to correct the deficiencies and you can provide a date by which you will correct the deficiencies. If the BLM determines that the request does not warrant an additional extension, the BLM will return the APD as incomplete.

If you have any questions, please contact [REDACTED]

Sincerely,

- The BLM will consider the extension request if you can prove your diligence (providing reasons and examples of why the delay is occurring) in attempting to correct the deficiencies and you can provide a date by which you will correct the deficiencies. If the BLM determines that the request does not warrant an additional extension, the BLM will return the APD as incomplete.

If you have any questions, please contact [REDACTED]

Sincerely,

cc: [REDACTED]

Date Released

26/2015

ADDENDUM - Incomplete/Deficient	Clarifications
Adjudication Comments	
Legal Description Deficiency/Deficiencies:	
<ul style="list-style-type: none"> - Bottom hole location(s) submitted is conflicting or incorrect. - The spacing order does not cover the objective formation and may delay or prohibit APD approval. - The number of wells are not allowed in the spacing unit and may delay or prohibit APD approval. - The established spacing unit does not match the spacing unit on the form 3160-3 and may delay or prohibit APD approval. 	
Compliance with Legal Setbacks:	
Description of non-compliance of legal setbacks *	
<ul style="list-style-type: none"> - The Participating Area serial number submitted is not correct. - The Unit serial number submitted is not correct. - The proposed well is not included in the approved Unit Plan of Development. - Coordinates (Latitude, Longitude) are missing or Coordinates (Latitude, Longitude) are not referenced in North American Datum 1983 (NAD 83) or latest edition. - Footages (feet and direction) are missing or Footages (feet and direction) do not match the footages on the APD form 3160-3. - Distance in feet and direction from the nearest two adjacent property lines are missing or incorrect. - Land Surveyor Stamp is missing and/or Land Surveyor Signature is missing. - Surface ownership on the well is incorrect. - Surface ownership of the access road is incorrect. - Provide certification of surface access agreement for off-lease access. - Provide certification of surface access agreement for on-lease access or adequate surface bond. - Adjudicator Review bond additional information: Adjudicator Review bond additional information - Surface Review bond additional information: Surface Review bond additional information - Concurrence from these Surface Management Agency are required (Adjudicator alteration): * BUREAU OF INDIAN AFFAIRS. - Adjudicator additional information: Additional information to include in the deficiency letter 	

Figure 62 - 10-day letter example

6.11.9 Operator submit changes/address deficiencies in APD process

After the 10-day letter, is sent, the APD is sent back to the operator to update deficiencies. IF THERE ARE NO DEFICIENCIES TO UPDATE, THIS STEP IS SKIPPED AND THE APD GOES DIRECTLY TO THE REVIEWS BY SURFACE ANALYST, GEOLOGIST AND ENGINEERS (APPROVALS/COAS).

The screenshot displays the 'Section 1 - General' form in the AFMSS II Operator Interface. The interface includes a sidebar on the left with a progress bar and navigation links, and a main form area on the right with various input fields and buttons.

Progress Bar: Shows three steps: 1 (Current), 2, and 3.

Section 1 - General:

- APD ID:** 10400009457
- Tie to previous NOS?** ☒ Yes ☐ No
- Select the NOS to Copy:** 10400009445
- Select the Copy Option:**
 - ☐ Copy ALL data from selected NOS
 - ☐ Copy ALL data from selected NOS except the well location data
 - ☐ Copy ALL data from selected NOS except attachments
 - ☐ Copy ALL data from selected NOS except attachments and well location data
- Copy NOS** (button)
- BLM Office *** FARMINGTON
- User:** Jessie Gonzales **Title:** Business Analyst
- Federal/Indian APD *** ☒ FEDERAL ☐ INDIAN
- First lease Federal or Indian? *** ☒ Federal ☐ Indian
- Lease number *** COC12345 **Lease Acres:** 1839.6
- Agreement in place? *** ☒ Yes ☐ No
- Federal or Indian agreement *** ☒ FEDERAL ☐ INDIAN
- Agreement number *** COC47635X
- Agreement name:**
- Keep application confidential? *** ☐ Yes ☒ No
- Designated Agent? *** ☐ Yes ☒ No
- APD Operator *** DANIELS COMPANY
- Operator Info:**
 - Operator Organization Name
 - Operator Address
 - Operator PO Box
 - Operator City State Zip
 - Operator Phone
 - Operator Internet Address

Navigation Buttons: Back, Validate, Save, Save & Exit, Next

Left Sidebar:

- Application:** 0 %
- Drilling Plan:** 0 %
- Surface Use Plan of Operations:** 0 %
- Produced Water Disposal:** 0 %
- Bonds:** 0 %
- Operator Certification:** 0 %
- Application Fee:** 0 %
- Current section:**
 - Completed
 - Partially complete
 - Not started
- [APD Print Report](#)
- [APD Attachments](#)
- [3160 Form](#)
- [10-Day Letter](#)
- Submit APD** (button)
- Request Extension** (button)
- Withdraw APD** (button)

Figure 63 - Operator submit changes/address deficiencies

6.11.10 Operator Print Package

The final step in the process is for the Operator to access the APD package within AFMSS II. By hitting the “complete” button, the process is completed and the APD is listed in the Archive (this will happen automatically after 30 days). The Operator can print the complete APD Package from this screen.

Figure 64 - Operator Print APD Package

7 APPENDIX A – Helpful Hints

Radio Buttons: ☐ Only one selection at a time.

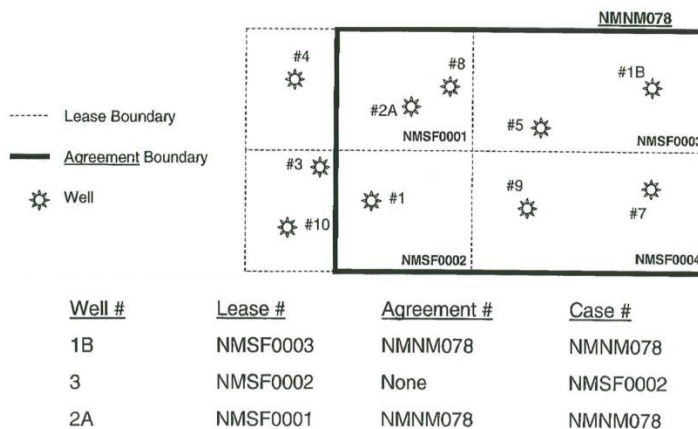
Check boxes: ☐ Multiple selections can be made.

Before exiting any window, use the SAVE, SAVE & EXIT, or NEXT button to save any new or changed data you have added.

Legal Land Descriptions:

- LLDs are not zero filled. They can be entered as such:
 - Township: 3N = 3N
 - Range: 21E = 21E
 - Section: 31 = 31
 - Aliquot Part: QTR/QTR
 - Lot: numeric number

Case: Lease or Agreement?

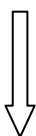


Case =

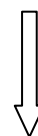
Lease

OR

Agreement



Federal
Tribal
Fee
State
Un-leased
Private/Acquired



Unit/Participating Area
Communitization Agreement (CA)
Gas Storage Agreement
Compensatory Royalty Agreement
API Unit (< 10% Fed/Ind Interest)

8 APPENDIX B - List of Terms

ABANDON

(1) The proper plugging and abandoning of a well in compliance with all applicable regulations, and the cleaning up of the well site to the satisfaction of

any governmental body having jurisdiction with respect thereto and to the reasonable satisfaction of the operator. (2) To cease efforts to find or produce from a well or field. (3) To plug a well completion and salvage material and equipment.

ABATEMENT

(1) The act or process of reducing the intensity of pollution. (2) The use of some method of abating pollution.

AMERICAN PETROLEUM INSTITUTE (API)

The American Petroleum Institute is the primary trade association representing the oil and natural gas industry in the united states.

ANNULUS

The space between: (1) the casing and the wall of the borehole. (2) Two strings of casing. (3) Tubing and casing.

API

American petroleum institute

API COUNTY CODE

An indicator developed by the American Petroleum Institute (API) to identify areas such as counties and other subdivision areas identified within state boundaries. Defined by API bulletin d12a, as amended. This code becomes a part of the API well number.

API STATE CODE

The indicator assigned to a state, as defined in API bulletin d12a, as amended. This code is a part of the API well number (the API state code for Colorado is 05).

API WELL NUMBER

A well identifier assigned as defined in API (American Petroleum Institute) bulletin d12a, as amended. The API well numbers are assigned by the appropriate state or federal regulatory agency.

APPRAISAL WELL

A well drilled as part of an appraisal drilling program which is carried out to determine the physical extent, reserves and likely production rate of a field.

ASSOCIATED GAS

A well drilled as part of an appraisal drilling program which is carried out to determine the physical extent, reserves and likely production rate of a field.

BARREL

A unit of volume measurement used for petroleum and its products (7.3 barrels = 1 ton: 6.29 barrels = 1 cubic meter).

bbl

One barrel of oil; 1 barrel = 35 imperial gallons (approx.), or 159 liters (approx.); 7.5 barrels = 1 ton (approx.); 6.29 barrels = 1 cubic meter.

bcf

Billion cubic feet; 1 bcf = 0.83 million tons of oil equivalent.

bcm	Billion cubic meters (1 cubic meter = 35.31 cubic feet).
BLOCK	An acreage sub-division measuring approximately 10 x 20 kms, forming part of a quadrant. E.g. block 9/13 is the 13th block in quadrant 9.
BLOW-DOWN	Condensate and gas is produced simultaneously from the outset of production.
BLOW-OUT	When well pressure exceeds the ability of the wellhead valves to control it. Oil and gas "blow wild" at the surface.
BLOW-OUT PREVENTERS (BOPS)	Are high pressure wellhead valves, designed to shut off the uncontrolled flow of hydrocarbons.
BOP	See blow-out preventers
BOREHOLE	The hole as drilled by the drill bit.
BRADENHEAD	A casinghead.
BRADENHEAD TEST	
CASING	Pipe cemented in the well to seal off formation fluids or keep the hole from caving in.
CASING STRING	The steel tubing that lines a well after it has been drilled. It is formed from sections of steel tube screwed together.
CENTRAL ESTIMATE	A range of exploration drilling scenarios from which the following activity levels, based on recent historical experience, are adopted as the central estimates.
CHRISTMAS TREE	The assembly of fittings and valves on the top of the casing which control the production rate of oil.
COGIS	Colorado oil and gas information systems
COMMERCIAL FIELD	An oil and/or gas field judged to be capable of producing enough net income to make it worth developing.
COMPLETION	The installation of permanent wellhead equipment for the production of oil and

	gas.
CONDENSATE	Hydrocarbons which are in the gaseous state under reservoir conditions and which become liquid when temperature or pressure is reduced. A mixture of pentanes and higher hydrocarbons.
CORING	Taking rock samples from a well by means of a special tool -- a "core barrel".
CRANE BARGE	A large barge, capable of lifting heavy equipment onto offshore platforms. Also known as a "derrick barge".
CRUDE OIL	Liquid petroleum as it comes out of the ground as distinguished from refined oils manufactured out of it.
CUBIC FOOT	A standard unit used to measure quantity of gas (at atmospheric pressure); 1 cubic foot = 0.0283 cubic meters.
CUTTINGS	Rock chips cut from the formation by the drill bit, and brought to the surface with the mud. Used by geologists to obtain formation data.
DEEPEN	To increase the distance below a specified reference datum.
DERRICK	The tower-like structure that houses most of the drilling controls.
DEVELOPMENT PHASE	The phase in which a proven oil or gas field is brought into production by drilling production (development) wells.
DRILL	(1) To bore a hole, also see drilling (2) an implement with cutting edges used to bore holes.
DRILLING	The using of a rig and crew for the drilling, suspension, completion, production testing, capping, plugging and abandoning, deepening, plugging back, sidetracking, redrilling or reconditioning of a well (except routine cleanout and pump or rod pulling operations) or the converting of a well to a source, injection, observation, or producing well, and including stratigraphic tests. Also includes any related environmental studies. Associated costs include completion costs but do not include equipping costs.
DRILLING RIG	A drilling unit that is not permanently fixed to the seabed, e.g. a drillship, a semi-submersible or a jack-up unit. Also means the derrick and its associated machinery.

DRY GAS	Natural gas composed mainly of methane with only minor amounts of ethane, propane and butane and little or no heavier hydrocarbons in the gasoline range.
DRY HOLE	A well which has proved to be non-productive.
E&A	Abbreviation for exploration and appraisal.
E&P	Abbreviation for exploration and production.
ENHANCED OIL RECOVERY	A process whereby oil is recovered other than by the natural pressure in a reservoir.
EXPLORATION DRILLING	Drilling carried out to determine whether hydrocarbons are present in a particular area or structure.
EXPLORATION PHASE	The phase of operations which covers the search for oil or gas by carrying out detailed geological and geophysical surveys followed up where appropriate by exploratory drilling.
EXPLORATION WELL	A well drilled in an unproven area; search of a new and as yet undiscovered field and/or pool of oil or gas. Also known as a "wildcat well". Drilling in a known area, but to a deeper undrilled formation would constitute exploratory drilling.
FARM IN	When a company acquires an interest in a block by taking over all or part of the financial commitment for drilling and exploration wells.
FIELD	A geographical area under which an oil or gas reservoir lies.
FISHING	Retrieving objects from the borehole, such as a broken drill string, or tools.
FORMATION PRESSURE	The pressure at the bottom of a well when it is shut in at the wellhead.
FORMATION WATER	Salt water underlying gas and oil in the formation.
FRACTURING	A method of breaking down a formation by pumping fluid at very high pressures. The objective is to increase production rates from a reservoir.
G	Gas.

G/C	Gas condensate.
GAS FIELD	A field containing natural gas but no oil.
GAS INJECTION	The process whereby separated associated gas is pumped back into a reservoir for conservation purposes or to maintain the reservoir pressure.
GAS/OIL RATIO	The volume of gas at atmospheric pressure produced per unit of oil produced.
GEOGRAPHIC INFORMATION SYSTEMS(GIS)	A computer system capable of assembling, storing, manipulating, and displaying geographically referenced information.
GIS	See: geographic information systems
HYDROCARBON	A compound containing only the elements hydrogen and carbon. May exist as a solid, a liquid or a gas. The term is mainly used in a catch-all sense for oil, gas and condensate.
IDLE PRODUCING	
INJECTION WELL	A well used for pumping water or gas into the reservoir.
JACKET	The lower section, or "legs", of an offshore platform.
KICK	A well is said to "kick" if the formation pressure exceeds the pressure exerted by the mud column.
LAY BARGE	A barge that is specially equipped to lay submarine pipelines.
LIQUEFIED NATURAL GAS (LNG)	Oilfield or naturally occurring gas, chiefly methane, liquefied for transportation.
LIQUEFIED PETROLEUM GAS (LPG)	Light hydrocarbon material, gaseous at atmospheric temperature and pressure, held in the liquid state by pressure to facilitate storage, transport and handling. Commercial liquefied gas consists essentially of either propane or butane, or mixtures thereof.
mboe	Million barrels oil equivalent.
MECHANICAL INTEGRITY	The act of setting a packer or retrievable bridge plug above the perforations in

TEST	a wellbore and applying pressure to the annulus in order to ensure soundness of the casing.
METRIC TON	Equivalent to 1000 kilos, 2204.61 lbs.; 7.5 barrels.
MIT	Mechanical integrity test
mmcfd	Millions of cubic feet per day (of gas).
MOONPOOL	An aperture in the center of a drillship or semi-submersible drilling rig, through which drilling and diving operations can be conducted.
MOU/MOA	Memorandums of understanding/agreement
MUD	A mixture of base substance and additives used to lubricate the drill bit and to counteract the natural pressure of the formation.
NATURAL GAS	Gas, occurring naturally and often found in association with crude petroleum.
NATURAL GAS POLICY ACT OF 1978	Enacted on November 9, 1978 and became effective December 1, 1978. The act has been amended, and it replaced or amended the natural gas act. Refer to 15usc 3301-3432.
NGLS	Natural gas liquids. Liquid hydrocarbons found in association with natural gas.
NGPA	See: natural gas policy act of 1978.
O	Oil.
O&G	Oil and gas.
OIL	A mixture of liquid hydrocarbons of different molecular weights.
OIL FIELD	A geographic area under which an oil reservoir lies.
OIL IN PLACE	An estimated measure of the total amount of oil contained in a reservoir and, as such, a higher figure than the estimated recoverable reserves of oil.
OPERATOR	The company that has legal authority to drill wells and undertake the production of hydrocarbons that are found. The operator is often part of a

consortium and acts on behalf of this consortium.

PAYZONE	Rock in which oil and gas are found in exploitable quantities.
PERMEABILITY	The property of a formation which quantifies the flow of a fluid through the pore spaces and into the wellbore.
PETROLEUM	A generic name for hydrocarbons, including crude oil, natural gas liquids, natural gas and their products.
PLATFORM	An offshore structure that is permanently fixed to the seabed.
POROSITY	The percentage of void in a porous rock compared to the solid formation.
POSSIBLE RESERVES	Those reserves which at present cannot be regarded as 'probable' but are estimated to have a significant but less than 50% chance of being technically and economically producible.
PRIMARY RECOVERY	Recovery of oil or gas from a reservoir purely by using the natural pressure in the reservoir to force the oil or gas out.
PROBABLE RESERVES	Those reserves which are not yet proven but which are estimated to have a better than 50% chance of being technically and economically producible.
PROVEN FIELD	An oil and/or gas field whose physical extent and estimated reserves have been determined.
PROVEN RESERVES	Those reserves which on the available evidence are virtually certain to be technically and economically producible (i.e. having a better than 90% chance of being produced).
RECOMPLETE	An operation involving any of the following: (1) deepening from one zone to another zone.(2) completing well in an additional zone.(3) plugging back from one zone to another zone.(4) sidetracking to purposely change the location of the bottom of the well, but not including sidetracking for the sole purpose of bypassing obstructions in the borehole.(5) conversion of a service well to an oil or gas well in a different zone.(6) conversion of an oil or gas well to a service well in a different zone.
RECOVERABLE RESERVES	That proportion of the oil and/gas in a reservoir that can be removed using currently available techniques.






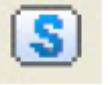
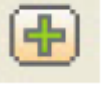

RECOVERY FACTOR	That proportion of the oil and/gas in a reservoir that can be removed using currently available techniques.
REENTER	To enter a previously abandoned well.
RESERVOIR	The underground formation where oil and gas has accumulated. It consists of a porous rock to hold the oil or gas, and a cap rock that prevents its escape.
RISER (DRILLING)	A pipe between a seabed bop and a floating drilling rig.
RISER (PRODUCTION)	The section of pipework that joins a seabed wellhead to the Christmas tree.
ROUGHNECK	Drill crew members who work on the derrick floor, screwing together the sections of drill pipe when running or pulling a drill string.
ROUSTABOUT	Drill crew members who handle the loading and unloading of equipment and assist in general operations around the rig.
ROYALTY PAYMENT	The cash or kind paid to the owner of mineral rights.
SECONDARY RECOVERY	Recovery of oil or gas from a reservoir by artificially maintaining or enhancing the reservoir pressure by injecting gas, water or other substances into the reservoir rock.
SHUT IN WELL	A well which is capable of producing but is not presently producing. Reasons for a well being shut in may be lack of equipment, market or other.
SHUTDOWN	A production hiatus during which the platform ceases to produce while essential maintenance work is undertaken.
SI/TA	Shut in /temporarily abandoned
SIDETRACK	A wellbore segment extending from a wellbore intersection along a wellbore path to a different wellbore bottom hole from any previously existing wellbore bottom holes.
SIDETRACKING	The well activity of drilling a new wellbore segment from a wellbore intersection to a new wellbore bottom hole or target.
SPLIT ESTATE	Lands where the surface is owned by an entity or person other than the owner

of the Federal or Indian oil and gas.

SPUDDING	Initial hole making operations for a well. May involve dry-hole digger, cable tool spudding unit, air-rig or rotary rig capable of reaching total depth. (See BLM Drilling Operations Manual/Handbook 3160 - Glossary)
SURFACE LOCATION	The location of a well or facility/measurement point.
SURFACE MANAGEMENT AGENCY (SMA)	Any Federal or State agency having jurisdiction over the surface overlying Federal or Indian owned minerals.
SURFACE MANAGEMENT ENTITY	Private owner or entity held in trust of the surface estate.
SURFACE RECLAMATION	A restoration of the surface as for productivity or usefulness.
SUSPENDED WELL	A well that has been capped off temporarily.
TCF	Trillion cubic feet (of gas).
TEMPORARILY ABANDONED	The act of isolating the completed interval or intervals within a wellbore from the surface by means of a cement retainer, cast iron bridge plug, cement plug, tubing and packer with tubing plug, or any combination thereof.
TOOLPUSHER	Second-in-command of a drilling crew under the drilling superintendent. Responsible for the day-to-day running of the rig and for ensuring that all the necessary equipment is available.
TOPSIDES	The superstructure of a platform.
UIC	Underground injection control
UNDERGROUND INJECTION CONTROL	A program required in each state by a provision of the safe drinking water act (sdwa) for the regulation of injection wells, including a permit system. An applicant must demonstrate that the well has no reasonable chance of adversely affecting the quality of an underground source of drinking water before a permit is issued.
VARIANCE	An approved alternative to a provision or standard of an Order or Notice to Lessee.

WELL LOG	A record of geological formation penetrated during drilling, including technical details of the operation.
WILDCAT WELL	A well drilled in an unproven area. Also known as an "exploration well". [The term comes from exploration wells in West Texas in the 1920s. Wildcats were abundant in the locality, and those unlucky enough to be shot were hung from oil derricks.]
WORKOVER	Remedial work to the equipment within a well, the well pipework, or relating to attempts to increase the rate of flow.

9 List of Process Monitor Icons

Icon	9.1.1.1 Icon Description
	Normal
	Mail
	Agent
	Component
	Queue
	SQL
	Sub Process
	XOR Gateway

	OR Gateway
	AND Gateway
	Complex Gateway
	None Start Event
	None End Event
	Message End Event
	Link End Event
	Terminate End Event
	Demolish End Event
	Timer Intermediate Event
	Error Intermediate Event